Oil and Gas Regulation:
A Guide for Local Governments

Photo courtesy of Brian Ray, Craig Daily Press

COLORADO DEPARTMENT OF LOCAL AFFAIRS
DIVISION OF LOCAL GOVERNMENT
Thanks to all the survey respondents, communities providing case study information, Colorado Oil and Gas Conservation Commission, Anadarko/Kerr-McGee, several peer reviewers, with special thanks to the late Randy Russell.

Statement of Limitations: The purpose of this document is to provide general guidance and clarity on the issues surrounding oil and gas development. This information is general in nature and should not be interpreted as legal advice. Please consult your attorney when considering new or amended regulations. This guide is meant to encourage collaboration among local governments, the Colorado Oil and Gas Conservation Commission, and industry representatives.
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OVERVIEW

The oil and gas industry in Colorado, as across the West, is volatile. In 2008, exploration, permitting and drilling activity surged, bringing associated positive and negative impacts. In 2009 and 2010, the opposite was true, creating a different set of impacts. While to some extent the boom/bust cycle of energy development is a natural feature of that industry, local governments are always faced with the task of coming to grips with the impacts of both sides of that equation and what it really means for their citizens and their local operations. Complicating this situation is the fact that regulation of oil and gas activity is shared with the state and federal governments. The impacts of oil and gas development are themselves complex, extending well beyond the traditional issues with which local governments are familiar and to which existing land use regulations are geared. Who could have imagined, for example, that a significant impact of oil and gas development in western Colorado at one time would be a shortage of hotel and motel rooms for tourists, and the resulting impact on local economies through loss of tax revenues?

The purpose of this guide is to provide a broad evaluation and perspective to help counties and municipalities in Colorado come to terms with and shape the way in which they individually wish to work with the industry to address these new concerns. This handbook contains the following major sections:

- General description of the type of impacts occurring across the state from oil and gas development (both traditional and nontraditional impacts). This information is drawn from a broad survey of information of representative local governments on both sides of the Continental Divide.

- Statutory and case law authority affecting local regulation of oil and gas activities, with a particular emphasis on the degree to which local regulation is or may be precluded through "operational preemption."
The range of available regulatory techniques, with examples and illustrations.

Available mitigation strategies, illustrated by case studies from selected jurisdictions that have achieved instructive results.

Use of consultants or specialized staff to advise regarding industry practices in the field.

The role of the Colorado Oil and Gas Conservation Commission (COGCC) and its rules and regulations, including recent changes.

How the COGCC and local governments can work together to successfully manage exploration and production.

Suggestions from the oil and gas industry on how to achieve a working relationship.

An especially important part of this handbook is its appendices, including frequently asked questions and sources for further information, listing website and contact information for government and industry agencies and programs.

The focus of this handbook is oil and gas development. However, the reader will quickly come to appreciate that many of the concerns are no different from those raised with other extractive industries, such as uranium milling and mining and other hard rock mining. While it is not the intention of this handbook to specifically address regulation of hard rock mining and other extractive industries, local jurisdictions may wish to draw from examples here to examine their regulatory and permitting processes for other extractive and industrial activities. Of special note would be potential geothermal future development or slurry pipelines and conveyor systems. Geothermal, where the resource can be tied to groundwater, is classified as a 'mineral' and under the jurisdiction of the BLM. The resulting well pads, drilling activity, pipeline corridor development, consolidation facilities and power conversion or generation facilities may well have similar development characteristics and impacts to those being described here.
DESCRIPTION OF IMPACTS

THE IMPACT SURVEY

A survey\(^1\) was conducted with the goal of obtaining a broad understanding of the impacts of oil and gas development on local governments in Colorado. Some respondents expressed concern for the environment, including the protection of wildlife, drinking water, and the natural beauty that brings millions of people to the state each year. Others expressed satisfaction with the well paying jobs and tax revenue from an industry that experts believe will develop resources throughout the state for many years to come. Ultimately, there are very real impacts, both positive and negative, on local governments and their residents throughout the state from this rapidly expanding (and currently, contracting) industry. This is not unique to the oil and gas industry since some of these impacts could occur from any rapidly expanding industry. However, depending upon the local circumstances and their potential for oil and gas development, individual counties and municipalities may want to consider how to prepare and deal with the following potential issues.

\(^1\) This survey included: 1) interviewing, by telephone and in person, local government staff from around the state whose counties or municipalities have oil and gas development within their boundaries; 2) a review of newspaper articles from around the state regarding oil and gas development; 3) attending the 2008 rulemaking hearings of the Colorado Oil and Gas Conservation Commission ("Commission"); 4) reviewing various written testimony submitted to the Commission by parties to the rulemaking hearings; and, 5) reviewing expert reports produced on behalf of counties, municipalities, industry, and the state.

INTRODUCTION TO OIL AND GAS IMPACT ANALYSIS

Any listing of the impacts of oil and gas development is by necessity arbitrary, as the industry itself is a complex and intertwined set of activities that impact land use, local infrastructure, the size and type of workforce involved and the duration of the impacts. Some activity may last one construction season, while others may have a 40 year life. This introduction contains a short description of the broad outlines of the industry as related to its impacts and regulatory considerations, and serves as a factual basis for the listing of specific impacts which follows.

Well field development

Development of a field involves access to the area (typically a fairly high standard road to handle heavy trucks), individual well pad access, well pad clearing and preparation, utility installation to the pad (monitoring equipment, maybe utilities), drilling and the related stages, wastewater storage or piping facilities, and once in production, the servicing of the wells. A well field may require a source of water, or it will need to be hauled. Many fields either have individual holding ponds at the pads, or a consolidated reservoir. The wells are connected with internal field piping. Field characteristics will vary considerably depending on the terrain and well spacing requirements.
Regulatory issues include field access traffic and weight levels, frost thaw constraints, reclamation concerns, weed control issues, drainage and containment, fire suppression and response, seasonal wildlife concerns, dust control, access control (locked gates and ensuring sensitive areas aren’t exposed to public traffic), final visual impact, noise and the duration of noise during development, mud transported to county or municipal roads and inspection requirements.

**Pipeline development and compressor stations**

Well fields need to be connected with the natural gas market, and this involves larger pipes and varying degrees of pressure to deliver the product to a refining and upgrading facility. These pipelines can span many miles, and often cross a variety of jurisdictions and a mix of public and private lands. Where they cross public land they are subject to environmental review and will be permitted with a variety of stipulations. Those stipulations will typically apply only to the public lands they traverse, however, and individual agreements with private landowners are typically negotiated separately. As examples, a landowner may prefer a new access road on top of the pipeline, rather than restoration to a natural state, or new fencing. Pipelines of this size and length often require one or more compressor stations to upgrade pressure along the pipe. These are usually situated near an existing source of power wherever possible. The industry has become very adept at pipeline construction, and construction is typically done in one season.

Regulatory issues include the designation of temporary construction staging areas for materials storage, equipment, employee parking and shuttles, agreement on the width of the corridor to be disturbed, reclamation and reseeding (and bonding and inspection for that), visual impacts of corridor scars in sensitive view areas, temporary access road reclamation, dust control, drainage control, pipeline pressure testing issues (they use water), traffic patterns (school bus route sensitivity), hours of operation, whether employees are shuttled to the work site as it progresses, wildlife and livestock protections, stream and ditch crossings and watershed protection issues, compressor station siting and noise remediation issues, and any inspection of structures.

**Refinement facilities**

Natural gas when delivered from the various well fields needs to undergo some refinement before it can be fed into the national natural gas network of distribution lines. These are relatively centralized, and resemble moderately large industrial facilities, as they involve several refinement processes. They develop marketable byproducts that are trucked away. They are likely to be
located on valley floors in close proximity to major feeder pipelines and with good highway access, and often comprise many acres in size. Given their size and activity, they fall under a variety of federal regulatory requirements for internal setbacks, materials handling, spill containment, and safety compliance. They may take a year or two to construct, and employ a construction workforce with a substantial impact depending on the size of the surrounding communities. Their operational workforce is modest, as is operational traffic.

Regulatory issues include access and highway connectivity, appropriate zoning and land use considerations, buffering and containment off site for watershed protection, building inspection, emissions monitoring, noise, odors, visual impact, dust during construction, inspection of structures during construction, and emergency planning with first responders.

**Industrial staging areas**
The current oil and gas industry is fragmented in where it works, by necessity, and who works for it. Unlike most major industrial or other extractive industries, the boom and bust nature of oil and natural gas has led to a work force and agglomeration of sub-contractors that often comprises over 90% of a given company's work force. Sub-contractors often work for a variety of companies, as they play a specialized role in the various stages of well field development and stages of infrastructure development. As a result, local jurisdictions are likely to feel pressure for siting what might be termed 'industrial staging areas' or 'warehousing and storage' areas. The industry is heavy truck and trailer intensive, needing staging areas for truck parking and maintenance, storage of pipe and related materials, storage and assembly areas for tanks, metal building materials, etc. In many instances the applicants for these land use permits will not be the oil and gas company, but rather local contractors who wish to provide services to that oil or gas company. If the local jurisdiction doesn't have in its inventory appropriate sites for these kinds of staging areas, some critical land use issues may result. And, given the up and down cycles of this industry, consideration should be given to site clean up and maintenance requirements should a downturn occur.

Regulatory issues include appropriate highway access for heavy trucks, rail access and sidings where appropriate, screening and buffering, inventory of appropriate sites and appropriate land use regulations, fencing, surface treatments, drainage and run off, hazmat considerations and containment, structure inspection, hours of operation, noise, odor, dust and weeds, and site maintenance responsibilities.

Photo courtesy of Brian Ray, Craig Daily Press
1. IMPACTS ON EMPLOYMENT

Loss of an available pool of workers

Some local governments and other employers have experienced pressure on their workforce. In cases of rapid industry growth in an area, the oil and gas industry often pays better wages than the public or service sectors. For local governments this means that certain positions like police officers become increasingly harder to fill because local governments cannot compete with the pay scale of the industry. Similar challenges may be felt in the private service and retail sector, as labor migrates to higher paying jobs, leaving service employers short handed. In an attempt to remedy this, local governments and other employers must offer additional incentives to retain workers or to hire workers lost to the industry. Complicating this issue is the increasing cost of living and especially the cost of housing.

2. HOUSING IMPACTS

Loss of affordable housing

Local governments in areas of expanding oil and gas development often see a loss of available workforce housing as the local housing stock is taken up by industry employees. Because it takes months to years to develop new housing, there is substantial upward price pressure on existing units. This makes it increasingly difficult for employers to recruit workers to the area because the increase in housing costs outpaces growth in salaries. One survey respondent noted that because housing prices had increased substantially, a potential hiree declined a job offer because the closest affordable housing was over thirty miles away. This is a similar situation faced by the ski industry where many workers are forced to drive farther to find affordable places to live, placing increased demands on transportation networks as well.

Upward pressures on housing disproportionately impact low wage earners, persons on fixed income and seniors. Social services and non-profit housing agencies and authorities struggle to place people in lower rent or assisted housing in a heated rental market. In jurisdictions where affordable housing hasn’t been a demonstrated need or local government priority in the past, rapid development may trigger the need to develop response mechanisms and an expenditure of public funding to meet this need for an at risk population.

“The oil and gas industry in Colorado contributes significantly to the Colorado economy, with approximately $22.9 billion in economic output or 6.1% of the economy. Additionally, oil and gas activities contribute to 2.2% of the employment in the State with $4.3 billion in labor earnings annually. The average annual earnings per worker for these activities are approximately $61,000, which is 32% higher than the State average.”

- Oil and Gas Economic Impact Analysis, Colorado Energy Research Institute, 2007
3. TRANSPORTATION IMPACTS

Deteriorating roadways
Some local governments are struggling to maintain roadways and bridges because of the increase in heavy haul vehicle traffic from oil and gas development. In general, the effect is a substantial decrease in the quality of roadways because of an inability to keep pace with the necessary maintenance and improvements.

Traffic congestion
Because most oil and gas activity occurs in the unincorporated rural portions of counties, those roads are not developed for commuter traffic loads or consistent use by heavy equipment vehicles such as drill rigs or service semis. As oil and gas development increases, the road limitations create congestion where none previously existed.

Highway design capacity
Many rural highways were designed to meet anticipated traffic levels and mix, as were municipal streets. A sudden increase in traffic loading, or the mix of heavy trucks, can trigger the need for passing lanes, acceleration and deceleration lanes, intersection signalization or reconfiguration, the need for designated truck routes and enhanced maintenance schedules.

Traffic enforcement
Increased trip generation to more remote areas can strain existing law enforcement capacity in areas of speed enforcement, weight limit enforcement and response to accidents. Weight limit and noise ordinance enforcement can also affect municipalities.

Dust
Because most roads accessing well sites are gravel or dirt, the increased traffic on those roads creates additional dust in the area with associated impacts to air and water quality.

4. ENVIRONMENTAL AND COMPATIBILITY IMPACTS

Air quality
In 2007, the Denver metro area violated Environmental Protection Agency ozone pollutants that regulators attributed, in part, to increased well density and the toxins associated with oil and gas drilling. This resulted in increased emission controls for gas and oil equipment in the area.

Visual blight
As drilling increases, pumping stations, access roads, well pads, storage tanks, power lines, pipelines and other material and machines are added to the landscape. For some, this creates a visual impact because it disrupts previously undisturbed natural settings. At night drill rigs light up what was once dark sky.
Increased noise
Drilling and maintaining a well can create noise. As a well is drilled, the drill rig usually operates non-stop until the well is complete. In certain areas this can take six weeks. Even with noise mitigation efforts, there may be a constant audible hum. Compressor stations can be a permanent noise source. In rural areas, noise is noticed at a farther distance because there is less interference and therefore little to prevent noise from traveling.

Threats to wildlife
Documented impact of loss of wildlife caused by increased drilling is difficult to assess and evaluate. According to some, wildlife in certain areas is thriving with the increase in drilling activity. According to others, wildlife is under threat due to the fragmentation of habitat from increased activity. This is a complex issue that cannot be resolved by looking at success or decrease in one species. As the issues continue to be studied, it will be important to monitor the results.

Water quality
According to one article, the Commission received thirty eight complaints over the past decade regarding contamination of water wells. As drilling increases throughout the state, local governments should be prepared to discuss the industry's use of chemicals and drilling activities in proximity to local water supplies, as well as controls to address stormwater runoff from disturbed areas.

5. SEWER AND WATER INFRASTRUCTURE IMPACTS

Sewer infrastructure
Drilling activities, including the housing of workers on site in temporary living quarters, create significant amounts of waste. Well sites generally do not have access to sanitary sewer infrastructure and therefore sewage from such sites may be trucked to local treatment facilities. In some intensive drilling areas in the state, treatment facilities have reached their capacity. As populations expand from increasing oil and gas jobs and housing is developed correspondingly, there is a need to expand existing sanitary and waste water infrastructure at a significant cost to the service provider.

Water infrastructure
As housing is developed to handle the population expansion from the increase in oil and gas jobs, there is concern that existing local water infrastructure is insufficient to handle the growth.

6. **SOCIAL AND ECONOMIC IMPACTS**

**Increased local worker income**
A benefit of increased oil and gas development to local governments is the increase in many local worker salaries. This increase creates additional sales tax revenues for local governments as those workers spend their earnings in local establishments. Additional sales tax revenues could help local governments offset the costs to expand services required as populations increase due to expanded oil and gas development.

**Increased crime**
As population in areas increases due to growth in the oil and gas industry, local governments have seen an increase in local crime rates. In a couple of counties, the rapid increase of oil and gas development has strained county jails and available law enforcement staff.

**Loss of tourist housing**
In some areas, the industry has the potential to take over all of the hotel, motel, and recreational vehicle space to provide housing for its workers. While that may be great for certain businesses, many communities also rely on tourism and annual events for their economic well being. In addition, the loss of tourists may impact employers relying on those tourist dollars. Because tourism generates tax dollars, the loss of tourists may impact local budgets relying on those revenues.

7. **STAFF IMPACTS AND SERVICE REQUIREMENTS**

**Vegetative management**
The control and containment of infestations of noxious weeds has become an increasing priority in rural areas both on public and private land. The incursion of roads, well pads, pipeline corridors, utility corridors, worker housing sites and general traffic adds greatly to enforcement, monitoring and containment responsibilities. Many jurisdictions now mandate vehicle washing and specify a seed mix for use in reclamation activity, and weed free straw or hay for use in drainage control. Requiring a bond for reclamation places a strain on administrative and monitoring staff time. While the industry as a whole has been very supportive of weed control activity, the large numbers of subcontractors and staff turnover makes this an ongoing educational and enforcement challenge.

**Staffing Impacts and servicing requirements**
It is helpful to review oil and gas development in two dimensions: space and demographics. Spatially, the well field and pipeline activity may be very far flung and in areas that required very little attention in the past. County roads that saw little traffic and maintenance needs may suddenly require upgrading and increased maintenance. Municipalities that have watershed protection ordinances may need to inspect and process permits for development miles away. Rural volunteer fire districts may find themselves with requests for unfamiliar inspection requirements and increased long response trips. Building inspectors and county health department officials may be travelling long distances to certify structures and living quarters. Weed control staff responsibilities may increase exponentially. EMTs and ambulance services will register more calls and more calls requiring longer
travel time. The Sheriff’s department will have increasing calls in remote areas of all types. Planning, legal and administrative staff will find an increased burden dealing with various permits, liaison with state and federal agency reviews, tracking and clearing bonds or other forms of assurance.

On the demographic side, the increased population will increase demands for other types of services, and its characteristics will change over time. During the development phase some elements of that new population will be very transient. Examples include specialized pipefitters and electricians that may only be on site only for a few months. Drilling crews typically work long hours, but have long periods of time off, and may essentially commute to the area. As the industry matures, a higher percentage of employees will be permanent with full time jobs and the likelihood of being long term residents with families. As this employment curve shifts, so will the demand on a variety of services. Law enforcement and criminal justice institutions will likely see an increased but shifting case load over time from those dealing with a transient population to a more stable one. To the extent that the area becomes known as a likely employment center, social services and charitable organizations may encounter an increase in the number of people arriving to seek work with little means of support. Schools may encounter a high student turnover rate and difficulty recruiting teachers and staff. Mental health, drug and alcohol service providers will likely see case loads increase both from the new population and the historic residents if the transition is dramatic in a given community. Emergency rooms and clinics will likely see a rise in workplace related accidents, traffic accidents, and substance abuse.

All of the demographic impacts increase dramatically with a rapid boom in new residents, and also of note with a rapid bust. A major decline in employment levels can trigger tremendous impacts on law enforcement, social services, non-profit charities and things as tangential as animal shelters when people leave the area and abandon their pets.

**Nuisance complaints**

Residents may become frustrated with their local government's limited authority to respond to nuisance complaints. These complaints are often related to traffic, noise, and site disturbances arising from drilling and/or maintenance activities. These activities are not necessarily unlawful; thus education and proactive relationships are necessary to promote responsiveness by the industry and understanding by the public.

“In 2001, there were fewer than 1,000 natural gas wells in Garfield County. By the middle of 2005, that number has almost tripled, with industry predicting as many as 20,000 wells by the time the resource here has been fully developed. The question facing Garfield County and its communities is how to manage the growth of natural gas industry in a way that preserves economic diversity and the quality of life that the people living here value so highly.”

- The Rifle, Silt, New Castle Community Development Plan, 2006
WHAT IS PREEMPTION?

When creating local regulations for oil and gas operations, it is important to be aware of areas in which Congress, the Colorado General Assembly, and federal and state agencies, including the Colorado Oil and Gas Conservation Commission, have enacted laws and regulations. Understanding the standards set in these laws and regulations are important in order to avoid “operational preemption,” which can be a basis for invalidating local regulations.

THE PREEMPTION DOCTRINE

Preemption is a doctrine adopted by the United States Supreme Court that holds certain matters are of such a national interest that federal laws on those matters preempt – that is, take precedence over or “trump” – conflicting state laws. Similarly, state law can preempt local regulations if the matter being regulated is determined to be a matter of state interest. As expressed by the Colorado Supreme Court, “the purpose of the preemption doctrine is to establish a priority between potentially conflicting laws enacted by various levels of government.” 3

DETERMINING WHETHER A MATTER IS OF STATE OR LOCAL INTEREST

In order to determine priority between conflicting state and local laws, we must first determine whether a particular matter is: (i) a matter of state interest; (ii) a matter of local interest; or (iii) a matter of mixed state and local concern. This distinction is significant:

- If a matter is primarily of state interest, the state legislature may legislate in the area, but local governments may not unless authorized to do so by state statute.
- When the matter is primarily of local interest, such as land use regulation, the local interest will generally control.
- When the matter is a question of mixed interest, that is, both the state and local governments have an interest in the matter, the court will examine the issue on a case by case basis to determine which law, state or local, should control.4 Often, if the two laws can co-exist, there will be no preemption in the mixed interest area.

The bottom line is this: if a matter is primarily of state interest or of mixed state and local interest, a local regulation will or may be preempted by a state statute.

EXPRESS, IMPLIED AND OPERATIONAL PREEMPTION

There are three types of preemption:

1. **Express Preemption.** A federal or state law states, in clear terms,

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4 City of Northglenn v. Ibarra, 62 P.3d 151 (Colo. 2003).
that it is intended to take precedence over laws and regulations adopted by a lower legislative body (in other words, federal law trumps state statutes; state statutes trump local regulations);

2. **Implied Preemption.** Without the law expressly saying so, either:

   a. it is clear that the higher legislature’s interest in the matter must dominate; or

   b. the interest of the higher legislature and the lower legislature are in such conflict that there is no way to apply both laws;

3. **Operational Preemption.** The application of the laws or regulations of the lower legislature (local or state) “materially impedes or destroys” the interest of the higher legislative body (state or federal).

   At the local level, “operational preemption” occurs when applying the ordinances or regulations of the local government materially impedes or destroys the interest of the state or federal government. The question that local governments should ask themselves most frequently is this: Do the “on the ground” effects of the local laws or regulations conflict with the application of the state or federal law?

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5 In other words, the higher legislature’s interest in a matter is “so patently dominant over a lower legislature’s interest in the matter or that their respective interests are so irreconcilably in conflict, as to eliminate by necessary implication any prospect for a harmonious application of both regulatory schemes.” See **Bd of County Comm’nrs v. Bowen/Edwards Assocs., Inc.**, 830 P.2d 1045, 1058 (Colo. 1992).

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Since the 1992 Colorado Supreme Court decisions in **Bowen/Edwards** and **Voss**, it has been clear that state law does not expressly or impliedly prevent local governments from regulating oil and gas development or operations. However, local regulations will be preempted if they conflict with state statutes operationally. The test, again, is whether implementing a law that protects a local interest “materially impedes or destroys” the state interest.

Colorado case law also states that not even home rule municipalities, which have more local control than statutory cities and towns, may totally prohibit oil and gas drilling.

Finally, operational preemption will likely be found where local regulations impose technical conditions under circumstances where no such conditions are imposed under the state statutory or regulatory scheme or the local regulations are contrary to those required by state law or regulation.

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8 **Town of Frederick v North American Resources Company, 60 P.3d 758** (Colo. App. 2002); **Board of County Commissioners of**
REGULATION OF FEDERALLY-OWNED LAND

There are three principles, each of which has been established in Colorado, that are important to understand if you have federal land within your jurisdiction:

1. The simple fact that land is owned by the federal government or that someone has a federal license or permit does not mean that it is immune from state and local regulations.

2. The case law is clear that state law and the police power (preservation of health, safety and welfare) extend over federal land within the state’s boundaries until preempted and only to the extent actually preempted by federal law.

3. Where Congress has not, through legislation, stated its intent to override state power over public lands, and the state has not given up its legislative power, federal officials lack the power to regulate contrary to state law.

“Gunnison County has decided to adopt Performance Based Regulations. With this type of regulation we acknowledge that:

- Industry knows some aspects of oil and gas operations better than us
- We, the local government, know the problems that can be caused by oil and gas operations. So, we list the problems to avoid and ask industry to offer proposed solutions. We can then determine if the proposed solution is sufficient.”

David Baumgarten, Gunnison County Attorney

IMPORTANT FEDERAL AND STATE LAWS

There are many federal and state laws that regulate the oil and gas industry. Listed below are some of the more important laws of which local governments should be aware when drafting local regulations:

- Oil and Gas Conservation Act, C.R.S. §§ 34-60-101 et seq.
- Colorado Oil and Gas Conservation Commission Regulations, 2 C.C.R. 404-1
- Air Pollution Prevention and Control (the “Clean Air Act”), 42 U.S.C. §§ 7401-7671q.
- Clean Water Act, 33 U.S.C. §§ 1251 to 1387
- Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), 42 U.S.C. §§ 9601 to 9675
- Oil Pollution Act of 1990, 33 U.S.C. §§ 2701

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12 Colorado v. Toll, 268 U.S. 228 (1925).
STATUTORY AUTHORITY FOR LOCAL REGULATION OF OIL AND GAS DEVELOPMENT

This section of the handbook provides a summary of the statutory authority for county and municipal land use regulation of oil and gas exploration, development and operation.

LOCAL GOVERNMENT LAND USE CONTROL ENABLING ACT OF 1974

The Local Government Land Use Control Enabling Act (C.R.S. § 29-20-101 et seq.) (the "Act"), adopted by the state legislature in 1974 as H.B. 1034 as a companion bill to H.B. 1041 in that year (discussed below), gives broad authority to local governments to plan development within their respective jurisdictions. The Act provides local governments with specific land use powers that may be used to regulate certain oil and gas activities within their jurisdictions. The Act has been upheld by the Colorado Supreme Court as a proper basis for independent regulation of oil and gas activities, so long as the local regulations are not operationally preempted by the state Oil and Gas Conservation Act or by the rules adopted by the Oil and Gas Conservation Commission (the “Commission”). See Bowen/Edwards and Voss, discussed in the section on preemption case law, below.

Specific powers within the list of enumerated powers provided in Section 104 of the Act are the following:

- Regulate development and activities in hazardous areas;
- Protect lands from activities which would cause immediate or foreseeable material danger to significant wildlife habitat and would endanger a wildlife species;
- Preserve areas of historical or archeological importance;
- Regulate, within its jurisdiction, the establishment of roads on public lands administered by the federal government (such as new roads on BLM lands);
- Regulate the location of activities and developments that may result in significant changes in population density (for example, temporary living quarters or “man camps”);
- Provide for phased development of services and facilities (such as roads, water and sewer);
- Regulate the use of land on the basis of the impact thereof on the community or surrounding areas (much as conditional use permits do); and
- Otherwise plan for and regulate the use of land so as to provide planned and orderly use of land and protection of the environment in a manner consistent with constitutional rights.

A recent Colorado Supreme Court case, Droste v. Board of County Commissioners of County of Pitkin, 159 P.3d 601 (Colo. 2007), held that the Act could be the basis for imposing temporary moratoria.
Impact Fees
Section 104.5 of the Act, added in 2001, gives local governments the authority to impose impact fees as a condition of development. Impact fees may only be imposed to defray the projected impacts on capital facilities (such as roads and water and waste water treatment plants) caused by proposed development. In order to impose an impact fee, local governments must quantify the impacts of proposed development on existing capital facilities and establish the impact fee at a level no greater than necessary to offset such impacts. Impact fees may not be used to “catch up,” i.e., address existing deficiencies in capital facilities. Some Colorado counties are now imposing impact fees on a per-well or per-pad basis to address, among other things, impacts on roads.

Intergovernmental Agreements
Section 105 of the Act also authorizes local governments to enter into intergovernmental agreements for the purpose of jointly exercising planning, zoning, subdivision, building and related regulations. This section allows both counties and municipalities to plan across jurisdictional boundaries to jointly plan for appropriate oil and gas development within the county. Additional authority for intergovernmental cooperative planning and regulation is found at Art XIV, Sec. 18(2)(a) of the Colorado Constitution and C.R.S. § 29-1-203.

Areas and Activities of State Interest, C.R.S. § 24-65.1-101, et seq. (“HB1041”)

In 1974, the state legislature adopted House Bill 1041, the companion bill to H.B. 1034. HB 1041 permits local governments to regulate development that would affect areas and activities of state interest. Declaring that “the protection of the utility, value and future of all lands within the state...is a matter of public interest,” the legislature identified certain types of areas and certain activities in which the state was interested and established criteria for the administration of those areas and activities. Counties and municipalities are given the power to designate such areas and activities within their jurisdictions and to require that any developer apply for and receive a permit prior to beginning development.

H.B. 1041 encouraged counties and municipalities to designate such areas and activities within their jurisdiction and to administer them in accordance with the statutory guidelines, and the

“In Rio Blanco County, this industry is the cornerstone of our economy. Historically, we have maintained strong, positive relationships with our producers. New development has expanded both the geographic area and number of operators working here at a rate exceeding the capacity of our infrastructure – primarily roads. In order that new activity would share proportionally in meeting these needs, we concluded that impact fees on all new development – residential, commercial and industrial – represented the fairest and most equitable way to provide then needed infrastructure.”

- Ken Parsons,
Rio Blanco County Commissioner
guidelines promulgated by the local governments in accordance with the statutes. Within any area so designated, development requires an additional permit. Those areas available for designation under the statute and which are likely applicable to oil and gas operations include:

- Mineral resource areas;
- Natural hazard areas;
- Areas containing or having a significant impact upon historical, natural, or archaeological resources of statewide importance; and
- Areas around key facilities, including airports; major facilities of a public utility; and interchanges involving arterial highways, in which development may have a material effect upon the key facility or the surrounding community.

The criteria for administration of areas of state interest are found at C.R.S. § 24-65.1-202. Of particular note is the provision regarding mineral resource areas at § 24-65.1-202(1)(a):

> Mineral resource areas designated as areas of state interest shall be protected and administered in such a manner as to permit the extraction and exploration of minerals therefrom, unless extraction and exploration would cause significant danger to public health and safety. If the local government having jurisdiction, after weighing sufficient technical or other evidence, finds that the economic value of the minerals present therein is less than the value of another existing or requested use, such other use should be given preference; however, other uses which would not interfere with the extraction and exploration of minerals may be permitted in such areas of state interest.

An important limitation is found at Section 24-65.1-202(1)(d), C.R.S., which provides that an area of oil and gas resource development “shall not be designated as an area of state interest unless the state oil and gas conservation commission identifies such area for designation.”

The protection of historical, natural and archaeological resources is another important goal of the statute. Communities that rely on these resources for tourist dollars and that are seeing an increase in oil and gas development, for example, may want to consider designating such areas in order to provide additional protection for them and for their economies.

> ...An area of oil and gas resource development “shall not be designated as an area of state interest unless the state oil and gas conservation commission identifies such area for designation.

**Activities of State Interest.** C.R.S. § 24-65.1-203 lists activities of state interest that may be designated by local governments. The most relevant in terms of oil and gas exploration and development may be the site selection and development of “new communities,” defined as “the major revitalization of existing municipalities or the
establishment of urbanized growth centers in unincorporated areas.” The criteria for administration of this activity of state interest, found at C.R.S. § 24-65.1-204, include:

When applicable, or as may otherwise be provided by law, a new community design shall, at a minimum, provide for transportation, waste disposal, schools, and other governmental services in a manner that will not overload facilities of existing communities of the region. Priority shall be given to the development of total communities which provide for commercial and industrial activity, as well as residences, and for internal transportation and circulation patterns.

“1041 Regulations,” as they are known, represent a powerful land use tool for local governments that wish to regulate development that could have significant adverse effects on their communities.


In Colorado, land use planning has long been established as a matter of local concern. See Town of Telluride v. San Miguel Valley Corporation13 (“[W]e recognize that land use policy traditionally has been a local government function in the state...”).

The statutes that enable counties and statutory cities and towns to adopt land use plans, zone land, and enact building codes, are found in the Colorado Revised Statutes at Title 30, Article 28 for counties and Title 31, Article 23 for municipalities.

The county planning statutes, which begin at C.R.S. § 30-28-101, authorize the creation of a planning commission, development of master plans (also known as comprehensive plans), zoning laws, and subdivision regulations. The statutes concerning building codes are found at C.R.S. § 30-28-201 et seq. The corresponding enabling statutes for municipalities are located at C.R.S. §§ 31-23-201 et seq. (planning commission, master planning, subdivision) and 31-23-301 et seq. (zoning, building codes). Collectively, these statutes enable local governments to plan for and control development within their jurisdictions, and are the basic method through which specific regulations and mitigation requirements are imposed on all land use activity, including oil and gas operations.

Typically, fencing around well heads or tank batteries consists of chain link and razor wire. This alternative fencing meets industry safety standards and matches the character of the neighborhood. Courtesy of Todd Tucker, Town of Frederick.

**Watershed Protection, C.R.S. § 31-15-707(b)**

C.R.S. § 31-15-707 gives municipalities the power to “acquire waterworks, gasworks, and gas distribution systems.” Subsection (b) of the statute enables municipalities to:

Construct or authorize the construction of such waterworks without their limits and, for the purpose of maintaining and protecting the same from injury and the water from pollution, their jurisdiction shall extend over the territory occupied by such works and all reservoirs, streams, trenches, pipes, and drains used in and necessary for the construction, maintenance, and operation of the same and over the stream or source from which the water is taken for five miles above the point from which it is taken and to enact all ordinances and regulations necessary to carry the power conferred in this paragraph (b) into effect.

In *Town of Carbondale v. GSS Properties, LLC*¹⁴, the Town argued and the court agreed that C.R.S. § 31-15-707 gives municipalities the right to enact watershed protection ordinances. The court stated that the statute “gives municipalities jurisdiction over ‘the stream or source’ from which the water in their waterworks is taken ‘for five miles above the point from which it is taken.’” This jurisdiction necessarily extends to groundwater underneath properties within the five-mile area that finds its way into streams in the watershed.” While municipalities have the right to enact these ordinances to protect their watersheds, they must not conflict with state or federal statutes since to do so could mean they might be voided for operational preemption reasons. For further discussion of the use of watershed protection ordinances, please see the *Town of Palisade case study*.

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“*The Stakeholders of this plan recognize a heightened level of commitment and responsibility is required if and when energy development occurs in a watershed. The Watershed Plan explains the commitment of the involved parties to successfully resolve community issues relating to potential energy development in the watersheds of the Town of Palisade and the City of Grand Junction, Colorado.*

The goals of the Plan are to:
- Prepare a final Plan using public input and review
- Maintain a working relationship with the Stakeholders and communities;
- Address and resolve issues and concerns within the watersheds; and
- Facilitate an ongoing forum for open, objective, and timely communications.”

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REGULATIONS, FEES AND MITIGATION STRATEGIES

INTRODUCTION: OPERATIONAL PREEMPTION AND LOCAL REGULATION

As described above, the principal aspect of state and federal preemption as applied to local regulation of oil and gas activities is operational preemption, in which the local government may regulate in an area unless the effect of that regulation would, in the words of the Colorado Supreme Court in the Bowen/Edwards case, “materially impede or destroy the state interest” in the regulatory area concerned. As much as we might like a bright line rule that says the state may regulate the technical aspects of oil and gas operations and local governments may regulate anything non-technical, or a rule that divides the spheres of influence as below-ground and above-ground, there does not appear to be any easy division of authority.

Because of operational preemption in particular, it is imperative that local governments know what federal and state laws and regulations are in place that affect the oil and gas industry. With that knowledge, they can then enact laws that will not be preempted. So what types of regulation are available? What are the areas to avoid or where caution is recommended? A good starting point is to review the key Colorado appellate court decisions in this area, which are summarized in the Appendix under “Colorado Preemption Case Law.” The fact is that the courts describe operational preemption as an ad-hoc, case-by-case determination. Much depends upon the degree to which the local regulation can be seen as supplementing and supporting, rather than replacing or attempting to displace, the state regulation. In particular, local officials are encouraged to read the recent decision by the Colorado Court of Appeals that directly addresses operational preemption: Board of County Commissioners of Gunnison County v. BDS International, LLC, 159 P.3d 773 (Colo. App. 2006). This decision is helpful in particular for its description of categories of preempted, permitted, and potentially permitted local regulations. Find more information on this case in Appendix C.

Based on the case law, and with the caution that the COGCC has recently revised its rules and thus changed the scope of state regulation, the following are some categories that are generally available for local regulation.

- Laws that mirror state statutes are generally safe from an operational preemption challenge. However, the Colorado Court of Appeals has held that it is not permissible to adopt the COGCC fine schedule and then attempt to enforce it, as local governments are not authorized to undertake that state function;  
- Several courts have upheld requiring a special use permit, and it is the most common tool

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used to apply substantive requirements at the county and municipal level;

- Regulations addressing access roads and the impact of oil and gas operations on their maintenance are acceptable.
- Fire protection plans and emergency response requirements are acceptable.
- Impact fee ordinances that allow the local government to recoup the funds it will expend mitigating negative impacts from oil and gas development are defensible.

The case law also gives us some guidance on what categories of regulation are more likely to be declared to operationally conflict with the state regulatory scheme. These areas repeatedly come up in the cases:

- The technical aspects of drilling and pumping are heavily addressed in state law; the cases often call this area out as unavailable for local regulation under an operational preemption theory.
- Setback requirements that conflict with COGCC rules are problematic. Because this kind of requirement is essentially numeric, it is easy to see how conflict with different distances in the COGCC rules can cause problems, as was true for the Town in the Frederick case.
- Fines may not be inconsistent with the COGCC fine schedule.
- Financial requirements (separate from impact fees for non-preempted areas) should not conflict with the COGCC rules governing financial security to guarantee certain activities such as site reclamation and remediation.
- Noise abatement requirements can not go beyond those required by the state. (Town of Frederick)
- Visual resources requirements should not conflict with the detailed provisions on this subject in the COGCC rules. (Town of Frederick)

It is recognized that noise and visual impact, in particular, are areas in which local officials are under great pressure to act. While not completely unavailable as a topic for local regulation, it is recommended that the COGCC rules on these subjects be reviewed carefully before enacting a local requirement.

As noted above, the cases repeatedly state that the true test of whether a local regulation will be operationally preempted is only after it has been written and measured against the state requirements to see if in practice it frustrates the state regulatory scheme. The Gunnison County decision is particularly helpful in identifying the portions of the regulations at issue in that case that were not on their face preempted, as the challenger had argued, but that instead would require a full evidentiary review. In so holding, the Court of Appeals described these areas as of legitimate concern for local governments, and in which local governments have statutory authority to regulate, the issue being whether the particular regulation was operationally preempted:

- Protection of water quality (The Court of Appeals has held that this area is legitimate for local
regulation under the state watershed protection statute, remanding for an evidentiary hearing on preemption. \textit{Town of Carbondale v. GSS Properties}, 140 P.3d 53 (Colo. App. 2005), discussed in the Appendix;

- Drainage and soil erosion;
- Requirement for an analysis of existing wildlife and sensitive wildlife habitats and proposed mitigation efforts;
- Protection of livestock;
- Geologic hazards and protection of cultural resources;
- Wildfire protection (The Gunnison County court specifically held that “...so long as the [County] fire protection plan requirements are not contrary to the requirements of state law, the County may regulate in the area of fire protection.” As with all other disputed areas, the key is to review the COGCC rules on the topic and write the local regulation around those rules.),
- Recreation impacts.

The following two sections will describe how the impacts on local communities from oil and gas development may be addressed through local ordinances and regulations that regulate the source of those impacts, or provide that the costs of those impacts may be shared with the industry through other mitigation strategies.

\textbf{AVAILABLE REGULATORY TECHNIQUES}

With the foregoing operational preemption framework in mind, this section of the handbook will address regulations that may be considered by local governments in an effort to address the impacts of oil and gas exploration and development. We begin with the simplest ordinances and progress to increasingly detailed regulations.

\begin{quote}
To avoid operational preemption issues local supplemental zoning regulations must not conflict with state regulations, or in the words of the Court of Appeals in Town of Frederick v. North American Resources, "go beyond" those required by the state.
\end{quote}

\textbf{Supplemental Zoning Regulations}

Most local governments have adopted zoning ordinances or regulations under the authority granted by the county and municipal planning and building code statutes, described in the section entitled “Statutory Authority for Local Regulation of Oil and Gas Development.” At their most basic, these regulations address such topics as permitted uses in a zone district, height restrictions, and setback requirements. As a regulatory framework, local governments often adopt supplemental regulations that apply across the board in all zone districts. Examples of supplemental regulations include those that control home occupations, accessory uses, fences, solar devices, industrial performance standards, and those that regulate dust and glare.

Some communities have adopted supplemental regulations that apply to oil and gas exploration and production. Such regulations have included, for example:
- Setback requirements;
- Noise regulations;
- Visual impact mitigation requirements;
- Fugitive dust regulations,
- Lighting regulations.

To avoid operational preemption issues local supplemental zoning regulations must **not** conflict with state regulations, or in the words of the Court of Appeals in *Town of Frederick v. North American Resources*, "go beyond" those required by the state.

**Special Use Permits**

The overwhelming majority of counties and municipalities that have adopted any type of oil and gas regulation have chosen to implement those regulations through special use permits. Also known as conditional use permits or special review uses, special use permits are typically required for uses that may or may not work well depending on their specific location and the uses that surround it. An example of a use that might require such a review might be a shooting range in an agricultural zone district. This particular use may or may not function well in the proposed location, depending upon the proximity of homes and/or animals that might be affected.

The application for special use permits by oil and gas exploration and development may require any of the following:

- Detailed site drawings that show the location of structures, flow lines or pipelines, gathering systems, tanks, wells, pits, and associated equipment;
- Existing and proposed roads;
- Bodies of water and floodplains;
- Utility lines and easements;
- Ditches, dams, reservoirs;
- Mines;
- Geologic features;
- Existing and proposed topography;
- Wildlife habitat areas and migration routes;
- Copies of all required state permits;
- Copies of financial guarantees;
- An operation plan;
- An emergency response plan;
- A reclamation plan;
- Noise, odor and dust abatement plans;
- Proposed measures to mitigate visual impacts;
- Transportation plans;
- A waste disposal plan;
- Drainage and erosion control plans;
- A weed management plan,
- A stormwater management plan filed with the state.

The process for applying for and receiving a special use permit varies depending on the jurisdiction and may require notice to neighbors and or a public process. Generally speaking, the procedure is typically divided into an administrative review for minor facilities and a public hearing before the local governing body for major facilities. Notice of the application to adjoining property owners may be required for both processes. The standard of review in these cases may include suitability, safety, and compatibility. For an example of an administrative process, please see the *Town of Frederick case study*. Again, before adopting this type of regulatory scheme, it is important to
be aware of federal and state regulations to avoid preemption of the local regulations based on an operational conflict.

**1041 Regulations**
The state statutes that govern local 1041 Regulations, C.R.S. § 24-65.1-101 et seq., are quite detailed. They include explicit rules that limit the areas and activities of state interest that may be regulated, as well as the criteria for the administration of such regulations. Please refer to the discussion of 1041 Regulations found earlier in this Handbook. These regulations may be adopted to protect historical, natural or archaeological resources and areas around key facilities such as airports and arterial highway interchanges. Caution: the statutes include an explicit prohibition against designating an *area* of oil and gas or geothermal resource development as an area of state interest unless COGCC has identified the area for designation. This prohibition does not apply if an *activity* of state interest has been identified or if the area is part of another area of state interest.

**1034 Regulations and Impact Fees**
The Local Government Land Use Control Enabling Act of 1974 gives broad authority to local governments to plan development within their jurisdictions and across jurisdictions. These powers are discussed in detail earlier in this Handbook. In addition to enabling local government ordinances regulating development, 1034 Regulations have been the basis for the adoption of temporary moratoria. See *Droste v. Board of County Commissioners of County of Pitkin*, 159 P.3d 601 (Colo. 2007).

In 2001, the state legislature added C.R.S. § 29-20-104.5, which authorizes and regulates the adoption of impact fee ordinances by local governments. Impact fees may be imposed to fund expenditures by local governments on capital facilities needed to serve new development. These fees must be (1) legislatively adopted, (2) generally applicable to a broad class of property and (3) intended to defray the projected impacts on capital facilities (such as roads, and water and sewer plants and mains) caused by the proposed development. Because impact fees may not be used to remedy a current deficiency in capital facilities, studies fixing the estimated cost of development are necessary. Impact fees are an alternative method of sharing the cost of mitigating the impacts of oil and gas exploration and production with the industry.

> “Communities facing potential energy development activity should first protect their water. State and federal agencies may adopt and implement water quality standards but municipalities are the last line of defense in protecting drinking water.”

> -Tim Sarmo, Manager, Town of Palisade

**Watershed Protection Ordinances**
C.R.S. §31-15-707(b) gives municipalities the power to “acquire waterworks, gasworks, and gas distribution systems.” Subsection (b) of the statute enables municipalities to protect those infrastructures and the associated water and bodies of water from pollution. It extends the jurisdiction of the municipality over the territory.
occupied by the infrastructure “and all reservoirs, streams, trenches, pipes, and drains used in and necessary for the construction, maintenance, and operation of the infrastructure “and over the stream or source from which the water is taken for five miles above the point from which it is taken.” Finally, it authorizes the governing body of each municipality to enact all ordinances and regulations necessary to carry the power conferred by paragraph (b) into effect.

In *Town of Carbondale v. GSS Properties, LLC*, decided by the Colorado Court of Appeals in 2006, the Town argued and the court agreed that C.R.S. § 31-15-707 gives municipalities the right to enact watershed protection ordinances. That statute, the court stated, “gives municipalities jurisdiction over ‘the stream or source’ from which the water in their waterworks is taken ‘for five miles above the point from which it is taken.’” This jurisdiction necessarily extends to groundwater underneath properties within the five-mile area that finds its way into streams in the watershed.”

Several local governments in Colorado have enacted watershed protection ordinances. These ordinances can be used to ensure that water quality is not damaged as a result of oil and gas activity. Keep in mind, however, that these ordinances must not conflict with state or federal statutes since to do so could mean they might be operationally preempted. For further discussion of the use of watershed protection ordinances, please see the Town of Palisade case study found in this handbook, which describes the joint watershed protection plan adopted by the Town and the City of Grand Junction.

**OPERATIONAL CONFLICTS SPECIAL EXCEPTION**

Whatever approach is taken in an effort to regulate oil and gas exploration and development, it is recommended that local governments include provisions for a special exception to the regulations based on an operational conflict. Such a provision can be used to prevent local government regulations from actually conflicting in operation with the requirements of the Oil and Gas Conservation Act or other state or federal acts that address the activity being regulated by the local government, or their implementing regulations. In practice, the local government then has an opportunity to conduct its own “mini-evaluation” of its regulation to determine if it will conflict with the state scheme, with an actual operation in mind. This essentially anticipates the kind of ad-hoc evidentiary review that the court decisions tell us must often be undertaken to determine operational preemption. The goal of the adoption and use of such a procedure in the local regulation is to reduce the number of times a challenge will be brought to the regulations. Links to examples of this language found in local regulations can be found in the Appendix.

**MITIGATION STRATEGIES**

Research has revealed a wide range of impacts that may be felt in those locations in which the oil and gas industry operates. The list includes noise, dust, odors, visual impacts, damage to roads and bridges, affordable housing shortages, need for increased water and sewer capacity, and effects on recreation areas and
wildlife habitat. This section of the handbook will examine each of these impacts in turn and will provide suggestions for regulating or otherwise mitigating the impact.

**Dust**
Many local governments already have regulations that address dust concerns during the development of residential subdivisions and business parks. If not already broad enough to cover the installation of oil and gas facilities, these ordinances can be amended to include this type of installation. Please note, however, that the Commission adopted additional provisions at Rule 805(b) that require operators to control fugitive dust by employing practices such as speed reduction, regular road maintenance, and restriction of construction during high wind days. Dust control during construction is limited to sites greater than 5 acres in size in attainment areas (see Clean Air Act discussion in the Appendix, for a discussion of attainment areas) and 1 acre in size in non-attainment areas. In those circumstances, the operator is required to use all available and practical methods which are technologically feasible and economically reasonable to minimize fugitive dust. In developing dust control policies, local governments should take these directives from the Commission into account in order to avoid preemption. Simply adding a provision that air contaminant emissions must be in compliance with the permit and control provisions of the Colorado Air Quality Control Program or with the COGCC Rules may give the local government enforcement power.

**Housing**
Providing housing for the influx of oil and gas workers is a major impact on communities in oil and gas development areas. Fields are expected to be worked for anywhere from the next 10 to 30 years. Forward-thinking communities may want to consider how to diversify their economic bases during the next three decades to be able to absorb the homes that may be vacated when the oil and gas is depleted. Such diversification may allow oil and gas workers who have become permanent members of the community to remain and may attract new employees to the community.

Some of the housing provided during this period of intense start up work will, of course, be temporary. What can counties and municipalities do to regulate this temporary housing?
- **Temporary housing zone districts**
  One idea that has been enacted already is the temporary housing zone district. The main purpose of such a zone district is to permit easy re-development when the temporary boom is over.

- **Regulation of temporary living quarters**
  Temporary living quarters, also known as “TLQs” or “man camps,” have had numerous impacts on nearby towns, including the requirement for additional police patrol and intervention. These impacts are perhaps best addressed through collaboration with the industry to develop “rules of the camp” that will help reduce unwanted secondary effects. The need for additional facilities such as jails, to the extent it is quantifiable, may be included in an impact fee per wellhead or other measurement.

**Noise**

Like dust, many local governments have noise regulations. These tend to be general restrictions against any loud noise, especially at night. Some communities have specific restrictions on construction noise. These ordinances can be amended to include oil and gas construction and facility operation. Methods of mitigating noise that might be included in such a regulation may include requiring the following:

- Acoustically insulating housing or covers enclosing any motor or engine;
- Screening of the site or noise emitting equipment by fence or landscaping; solid wall;
- A solid wall or fence of acoustically insulating material surrounding all or part of the facility;
- The exhaust from all engines, motors, coolers and other mechanized equipment be vented upward in a direction away from the closest existing residence or platted subdivision;
- The use of electric motors for artificial lift installations;
- A noise management plan specifying the calendar period and/or hours of maximum noise and the type, frequency, and level of noise to be emitted; and
- Any other technically feasible and cost effective noise mitigation measures required by the local government.

Again, bear in mind that Rule 802 of the Commission’s regulations address the level of noise deemed acceptable according to the facility’s proximity to various zone districts and that it provides for where the noise level is measured. Under the Town of Frederick case, noise requirements beyond the state limitations were held to be preempted.
**Odors**

Regulations that address odors generally say that odors should not extend beyond the property line of the business emitting the odor. The Rules say that oil and gas facilities are to be operated so as to avoid being a nuisance or hazard to public health, safety, welfare or the environment. Rule 805 requires compliance with Regulation No. 2 of CDPHE’s Air Quality Control Division and includes specific measures for production equipment and operations, which, if followed, will prevent a citation for violation of this rule. The Rule further requires green completion practices for oil and gas wells under certain conditions. Local governments interested in regulating odors from oil and gas facilities should consult the Regulations in order to avoid conflicts with those rules. San Miguel County, for example, requires that applicants provide a copy of an odor abatement plan to prevent impacts on this and adjacent properties.

**Roads**

Road infrastructure sustains some of the heaviest and most costly impacts from oil and gas development. As noted above, this is an area in which the courts have recognized greater authority for local governments, it being a more traditional land use topic, and little related to the technical aspects of drilling and operation. Local governments may adopt a variety of regulations to address these impacts:

- A regulation may be adopted that limits vehicle weight on certain classes of roads;
- Permits could be required for oversized or overweight vehicles;
- A regulation could require that existing roads be used whenever possible to minimize land disturbance;
- A regulation may require that roads be constructed and maintained in compliance with the local government’s standards for road and bridge construction, as necessary to accommodate the traffic and equipment related to the oil and gas operation;
- An impact fee might require the applicant to bear its proportionate cost of road and bridge improvements, repairs and maintenance;
- A regulation could limit the number of trucks to a site to avoid damage to roads caused by heavy vehicle use, weather conditions or water saturation.

Photo courtesy of Brian Ray, Craig Daily Press
Visual Impacts

Visual impacts are generally of two types: development that blocks scenic views that are important to the community, or development that fails to blend appropriately with its surroundings thereby causing a decrease in an area’s natural beauty. Many local governments have already adopted scenic view corridor regulations and some have adopted regulations that limit height and require certain color schemes to help prevent negative visual impact from development. Other mitigation strategies may include the following requirements:

- Limiting the size of structures to that necessary to satisfy present and future functional requirements;
- Feathering and thinning of edges of vegetation when clearing trees and other vegetation for construction of facilities;
- Aligning access roads to follow existing grades;
- Minimizing cuts and fills and shaping them to appear as natural forms;
- Painting facilities in uniform, noncontrasting, nonreflective color tones and/or matching facilities to land, not sky, slightly darker than adjacent landscape;
- Establishing berms, ground covers, shrubs and trees;
- Directing exterior lighting either toward the ground or the surface of the building; prohibiting high intensity sodium vapor lighting; using lighting as needed only; shielding lighting to prevent direct visibility of light bulbs from off-site.

When considering adopting such regulations, please be aware of recent changes to Rule 804 which requires all production facilities observable from a public highway to be painted with colors slightly darker in tone to the colors of the surrounding landscape by September 1, 2010.

Water and Sewer

The water and sewer infrastructure requirements of oil and gas expansion in the state have placed significant burdens on local communities. In some circumstances, however, local governments have worked with the industry to meet these basic services. Package sewage plants are one alternative to running expensive sewer lines and expanding treatment plants. However, like any other type of development, these businesses may be required to pay their incremental share of the burden they place on the service provider. Plant investment fees are a type of impact fee. Section 29-20-104.5, C.R.S., gives local governments the authority to impose impact fees as a condition of development. Impact fees
may only be imposed according to a schedule that is (1) legislatively adopted; (2) generally applicable to a broad class of property; and (3) intended to defray the projected impacts on capital facilities (such as roads and water and waste water treatment plants) caused by proposed development. In order to impose an impact fee, local governments must quantify the impacts of proposed development on existing capital facilities and establish the impact fee at a level no greater than necessary to offset such impacts. Impact fees may not be used to as a way for the local government to “catch up,” i.e., address existing deficiencies in capital facilities.

**Water Quality**

As discussed in the section on Regulatory Techniques, some local governments have adopted watershed protection regulations. These regulations can protect the community’s water source as far as five miles from the point at which the water is taken and, significantly, can also protect groundwater. While some local governments have limited their water quality regulations to requiring applicants to comply with the listed state and federal water quality laws and regulations (which, importantly, gives the local government enforcement rights), others have adopted comprehensive watershed protection plans, which require:

- Communication and coordination with local communities, dispersal of information via an interactive website, quarterly electronic newsletters and public meeting briefings;
- Risk analysis addressing possible surface water contamination due to construction, sedimentation, well production and transportation, and contamination associated with spills or releases; and possible groundwater contamination related to surface spills or releases, drilling, construction and production and subsurface release of contaminants;
- Third party water studies and monitoring over the course of the development process;
- Best management practices for risk mitigation to protect watersheds, including:
  - clustered development well pad spacing
  - collaborative stormwater management plans
  - subcontractor education
  - emergency response plans
  - dust control
  - closed loop drilling systems
  - cementing/casing programs
  - green fracturing
  - fracture tracing
  - disposal of produced water in ways other than on-site recovery pits

![Photo courtesy of Mesa County](image_url)
Wildlife

State law requires that the COGCC adopt laws that work to protect wildlife habitat and migration corridors. During the 2008 COGCC rulemaking process, significant discussion was had concerning the regulations that were proposed for the protection of wildlife. These regulations appear at the new Section 1200 of the Rules. Mitigation strategies intended to protect wildlife may be as simple as including a prohibition against causing significant degradation of wildlife or wildlife habitat, requiring a wildlife and wildlife habitat analysis in conjunction with the Colorado Division of Wildlife and the U.S. Fish and Wildlife Service, or requiring that drilling and construction activities be avoided during critical use periods. Local governments should be aware of state and federal regulations (such as the Endangered Species Act), in order to avoid operational conflicts.

USE OF CONSULTANTS OR SPECIALIZED STAFF TO ADVISE REGARDING INDUSTRY PRACTICES IN THE FIELD AND MITIGATION STRATEGIES

It should be clear that oil and gas exploration, development and production activities are highly specialized. Many local governments in Colorado are completely unfamiliar with the mechanics of how the industry goes about these activities, leaving them without first hand knowledge of how to best implement local regulations. Similarly, the range of impacts and the available regulatory techniques are new to many Colorado local governments.

In this environment it could be useful and cost effective for a local government to augment its local planning staff with the use of a consultant or specialized staff member with expertise in this area. The scope of work could be limited to facilitating dialogue with the industry and assistance in drafting local regulations. Among other things, such a consultant could:

- Facilitate communication with industry representatives in a positive and knowledgeable way.
- Assist in distinguishing between impacts of concern to local governments and those which are not.
- Assist in key operational issues, and suggest alternative regulatory techniques which will be successful in achieving local governments' needs without unduly burdening the industry. For example, specialized knowledge about the power levels and design of motors used at the wellhead is not knowledge which is commonly possessed by a county or municipal planning department. However, that knowledge is particularly helpful in designing wellhead noise regulations which achieve their goals without unduly impairing the industry's ability to develop the resource.
- Assist in ensuring that a local government's regulations are not operationally preempted by state or federal rules or legislation.

While most Colorado local governments would agree that it is important to use consultants sparingly, a specialized consultant in this area can often be much more cost effective to the local government than the cost of (1) defending regulations which are not as “fine-tuned” as they otherwise could be, or (2) not positioning the local government to recover costs and mitigate the impacts the industry will have on the community.
CASE STUDIES

Many local governments in Colorado regulate oil and gas through their land use regulations. This makes sense since land use regulation is a local concern and local governments are best able to understand and regulate in this arena. This introduction is a description of the process many local governments follow to regulate oil and gas development. It is not meant to capture the intricacies of the local permitting process, which can vary from jurisdiction to jurisdiction.

It is recommended to adopt a permit process for locally regulating oil and gas development. Having such a process will help your local government to better monitor the location of oil and gas facilities and, at a minimum, ensure that oil and gas developers have the proper state and federal approvals to operate. Although the Colorado Oil and Gas Conservation Commission ("COGCC") is required to notify local governments through its application for permit to drill process, that does not always occur. Therefore, the local permitting process may provide the only opportunity for local governments to influence oil and gas development within their community.

Photo courtesy of Brian Ray, Craig Daily Press

In general, local governments require oil and gas companies to obtain a permit prior to beginning development of the resource. Depending on the type of facility proposed, this tends to be an administrative or special use review process (described more fully in each community's land use regulations). The types of facilities are sometimes generally described as either "minor" or "major" with the distinction for review purposes often between administrative review (minor) and special use permit review (major). An example of a minor facility is an individual well head. A major facility could include a site with a compressor station serving multiple wells, a location with multiple waste water detention ponds, a water injection station, storage yards or gas treatment facilities.

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16 One way to improve communication with the COGCC and industry is to assign a staff member as the COGCC Local Designee. Such person should be the primary contact person for the local government concerning oil and gas activity. With a Local Designee, the local government should receive additional information from the COGCC and establish preferences on how communication between the industry, the COGCC and the local government should occur.

17 The process is alternatively called a use by special review, conditional use review, oil and gas permit review, and many others. The processes are generally the same, involving a specific application, notice and public hearing.
For a major facility, and depending on the location, the local government may require the applicant to submit reports or studies indicating how it will mitigate certain foreseeable impacts. Those studies or reports generally address, among many topics:

- Weed control;
- Stormwater runoff;
- Traffic management;
- Noise;
- Wildlife habitat;
- Visual mitigation plans.

The types of reports required depend on the location and type of activity. In satisfaction of these report requests, some local governments accept the reports prepared for the COGCC, the Department of Wildlife, the Bureau of Land Management or Forest Service. During this process, the land use review department and/or the persons responsible for approving the facility may then impose conditions based on the result of the different reports or studies. This process generally takes a few months.

For a more detailed review of the available land use regulatory tools, see the chapter entitled "Regulations, Fees and Mitigation Strategies."

The following case studies describe how a few local governments in Colorado are dealing with existing or potential oil and gas development. These case studies are provided as a guide for issues your local community might consider when adopting or amending regulations pertaining to oil and gas development. The "Recommendations" at the end of each section can also serve as talking points when considering how to manage an adverse impact.
Adopt Comprehensive Oil and Gas Regulations Before Development Begins

Issue
The County did not have oil and gas regulations and parties expressed interest in developing oil and gas resources.

Resolution
Adopt new land use regulations applying to oil and gas activities in the County.

Facts
Saguache County is located in central Colorado. It is primarily an agricultural community but also relies heavily on tourism. In 2006, a company interested in seismic testing for potential oil and gas development approached the County about its local permitting process. The County did not have land use or other regulations pertaining to oil and gas development. That same year, the BLM began leasing portions of the County to an oil and gas developer. In order to stay ahead of the development, the County began work on drafting local oil and gas regulations.

Procedure
In order to learn how others were regulating oil and gas development, Saguache County contacted several local governments in the state that are considered leaders in the field of developing, defending and enforcing local oil and gas regulations. Two of the counties contacted were La Plata County and Gunnison County. Besides being leaders, Gunnison and La Plata are regionally closer to Saguache which made meeting with staff from the other counties easier and more efficient than if Saguache had called on Weld County for recommendations. At this point, Saguache County could have adopted any other local government's oil and gas regulations as its own. However, the County wanted to develop its own regulations that would address the needs and desires of its own community.

In addition, Saguache also researched local practices and regulations in other states with oil and gas activity. This helped provide Saguache with the information necessary to discuss the regulations with its citizens. Ultimately, the County spent significant time in stakeholder meetings working to mesh all of these regulations together so that, in the end, the County adopted regulations reflecting its local preferences and influences.
Regulations
Saguache County's new regulations address two types of facilities: minor and major facilities. For both types, the applicant must attend a pre-application meeting where the County describes the procedures, the submittal requirements and development standards. For both types of facilities, the County requires the applicant to provide: i) an emergency response plan; ii) a noxious weed plan; iii) visual and sound mitigation plans; iv) a roadway impact analysis; v) a waste management plan; and vi) a water quality impact assessment. In addition to these submittal requirements, the County adopted performance standards, well pad density guidelines, and visual impact mitigation guidelines.

Additional Information
Of note, Saguache County adopted an "Operational Conflicts Special Exceptions" provision into its new regulations. It is recommended that local governments consider adopting such a provision when drafting new regulations. The operational conflicts provision allows local governments to amend the requirements in a permit when it is determined that there is an operational conflict between the local regulations or permit requirements and the COGCC rules and/or the Colorado Oil and Gas Conservation Act.

Result
There has been no permit issued by Saguache County as of the publication of this handbook.

Recommendations
- Learn from other in-state local governments.
- Learn from out-of-state local governments.
- Be proactive and adopt regulations before significant development begins.
- Include an operational conflicts provision in your regulations.

Saguache County Oil and Gas Website (including regulations)
http://www.saguachecounty.net/depts/oilgas/
## Adopt Temporary Employee Housing Regulations

### Issue
The County did not allow for temporary employee housing on well pad sites.

### Resolution
Adopt new regulations that permit temporary employee housing with different levels of County review depending on the number of employees being housed.

### Facts
Garfield County is located on the western slope of Colorado with portions of the County included in the Piceance Basin. It experienced and continues to experience significant oil and gas drilling activity. Drilling a well requires a significant number of employees to monitor and facilitate the activity every hour of every day until the well is complete. This generally consists of two sets of employees who each work twelve hour shifts. Every well pad requires some amount of on-site employee housing. Generally, those staying on site are the essential employees. In addition, most of the well pad locations in the County are remote. To limit trips by exhausted non-essential employees and to provide ready access to the well pads in those remote locations companies seek additional onsite or near site temporary employee housing.

### Procedure
The County contacted the Colorado Attorney General's office and discovered the COGCC did not regulate temporary housing for oil and gas development staff. The County then worked with the industry and others to research the different types of temporary housing used by the oil and gas industry. The County determined that there would be three levels of on-site temporary employee housing. Almost 90% of the on-site housing was for eight or fewer essential employees. The remaining two levels of housing consisted of 1) between nine and twenty-four employees and 2) twenty-five or more employees.

### Regulations
The County adopted a three tier system for the different levels of temporary employee housing. When a company seeks to house eight or fewer employees on site, the County does not require any type of land use or building permit or review.
When there are between nine and twenty-four employees being housed, the County requires an administrative land use permit. This is a basic permit with limited review.

Finally, if there are twenty-five or more employees being housed, the County requires a special use permit. The Board of County Commissioners must approve the use before a permit will be issued. This is an intensive review process.

**Garfield County TLQ Regulations**

**Rio Blanco TLQ Regulations**

**Additional Information**

The [Colorado Division of Housing](http://www.colorado.gov/housing) now requires a seal that all temporary housing is approved for the use so requested. In addition, if a county does not have its own building department, all temporary housing must be inspected by the Division to verify that such housing meets the standards of the State Housing Board.

**Result**

The County's regulations took effect in September 2008. As of the time research for this guide was conducted, results of the Garfield County regulations were not available.

**Recommendations**

- Work with industry to understand what you are regulating.
- If your county or local government expects significant oil and gas development, start developing your temporary housing regulations now.
- Require and, if possible during inspections, ensure that all temporary employee housing is approved by the State Division of Housing.
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<th>Consider Impact Fees</th>
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<td><strong>Issue</strong>&lt;br&gt;Deteriorating roadways</td>
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<tr>
<td><strong>Resolution</strong>&lt;br&gt;Adopt a per well impact fee of $17,700 to offset future capital requirements for roads, law enforcement, and administrative facilities caused by oil and gas development.</td>
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**Facts**

Rio Blanco County is located in northwestern Colorado. It has a population of almost 6,000 residents, is over 3,000 square miles and owns and manages 961 linear miles of roads, most of which are dirt surface roads. The fastest growing business within Rio Blanco is oil and gas development on BLM lands in the Piceance Creek Basin. Rio Blanco’s roads provide the primary access point for that development. Although Rio Blanco is rich in natural resources, to access the gas in the Piceance Creek Basin from within the County, companies must drill to depths of between 7,000 and 9,000 feet. The greater the depth required to reach the gas requires a greater drilling period and, in turn significantly increases the number of trips by certain types of heavy-haul vehicles.

Rio Blanco’s roads are deteriorating due to the rapid increase in oil and gas development and the use of its roads by an increasing number of heavy haul vehicles. This increase in oil and gas development has also brought an increase in population impacting capital facilities including Rio Blanco’s administrative and jail facilities. In 2006, Rio Blanco commissioned a consulting firm to study the idea of imposing impact fees for required future improvements to roadways, expansion of police and jail facilities, and the construction of new administrative facilities. Because the roadway portion of the impact fee is the highest for oil and gas development, it is the topic discussed here.

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18 For a review of the County’s other portions of the impact fee, please visit the Rio Blanco County website. [www.co.rio-blanco.co.us](http://www.co.rio-blanco.co.us)
Procedure

Colorado allows local governments to charge impact fees as a condition of issuing a development permit so long as the fee is: i) legislatively adopted; ii) applicable to a broad class of property; and iii) intended to defray the projected impacts on capital facilities caused by the proposed development.\(^{19}\) Rio Blanco adopted a resolution imposing an impact fee that applied to all new development in the County, including residential development, commercial development and oil and gas development, based on a consulting report justifying the amount. The impact fee charged to oil and gas developers primarily serves to offset future costs of improving roadway infrastructure.

The amount of impact to a road is determined on what is known as an "ESAL". An ESAL is the equivalent of a single axle load's impact to the road. Cars and pickups have extremely low ESAL numbers whereas heavy haul vehicles have much higher ESAL numbers because of weight, and their relatively greater impact to the road. Because the portion of the Piceance Basin in Rio Blanco is remote and the depth of the average well is significant, well sites require numerous visits from heavy haul vehicles with high ESAL numbers. In fact, Rio Blanco's consulting report calculated that the average number of trips required of heavy haul vehicles to drill and maintain the average well site in the County, considering the forecasted average well life of 40 years, was approximately 2,700. Ultimately, this resulted in an impact fee of $17,700 per well.\(^{20}\)

Rio Blanco charges the impact fee to oil and gas development on a one time per well basis. The fee is assessed against the company when the permit is issued. This is not an ongoing fee and the funds generated should only apply to future capital improvements.

Regulations

It is of note that for many years Rio Blanco did not have a permit process for oil and gas development despite the existence of significant oil and gas activity. Rio Blanco realized that it could not track well location based solely on the COGCC permit process and needed a local way to coordinate well locations and therefore adopted the land use permit process. It is primarily an administrative review process with little additional submittal requirements. Rio Blanco charges a $250 permit fee to review the permit application.

\(^{19}\) C.R.S. § 29-20-104.5.

\(^{20}\) This amounts to approximately 1% of the total cost to drill a well. The impact fee is not ongoing and therefore over the life of a well, the impact fee becomes a substantially lower percentage of the total cost required to drill and maintain a well compared to the well's profitability.
Additional Information

*Alternatives Considered:* Instead of adopting the impact fee, Rio Blanco also considered changing one of its roads to a toll road in order to offset roadway maintenance costs. This concept was determined to be unviable because it would cause additional traffic congestion and problems monitoring and collecting from vehicles due to the numerous access points along the road.

**Result**

Rio Blanco began collecting the impact fee in 2008 and has thus far not experienced any problems. The main issue was getting the industry to recognize that Rio Blanco had adopted a permitting process where one had not previously existed. Most of the operators are now aware of both the process and of the impact fee, and have complied.

**Recommendations**

- Before adopting impact fees or other oil and gas regulations, present and consider alternatives and ask for public buy in.
- Discuss the need for impact fees with the industry and explain how such fees will be beneficial to the industry's operations; i.e. better roads make it easier for vehicles to get to job sites.
- Adopt impact fees for all new development and not just oil and gas activity.

At a minimum, consider adopting thorough oil and gas regulations to help the local government monitor oil and gas development activity in the area.

*Rio Blanco Impact Fees*
### Negotiate With the Industry

#### Issue
Oil and gas development proposed in over two-thirds of the Town's watershed.

#### Resolution
Negotiate a watershed management plan with the company proposing the activity to get assistance with testing water, monitoring existing watershed regulations and requiring best management practices for all oil and gas development within the watershed.

#### Facts
Palisade is located just off I-70 at the base of Grand Mesa, in an area that is considered a high desert climate. It is well-known for its production of peaches and more recently for its thriving wine making business.

Palisade is 1.1 square miles with no oil and gas activity. Its watershed is 21 square miles located in the Piceance Basin and is made up of primarily BLM and privately owned land. Genesis Gas and Oil, LLC ("Genesis") owned the lease rights to drill for natural gas on 15 square miles within the watershed. Because Genesis leased the mineral rights in over two-thirds of Palisade's watershed, there was concern about Palisade’s ability to protect its water source.

Prior to the BLM approving the leases, Palisade protested all oil and gas development within the watershed. The BLM did not prohibit all development but Palisade was successful in persuading the BLM to require Genesis to submit a community based water plan as a stipulation to its leases.

#### Procedure
Palisade’s Watershed Agreement serves as the community based water plan required as a stipulation in the BLM lease. The agreement was negotiated between Palisade, Genesis and other stakeholders in the area, including Grand Junction and Mesa County. The agreement is not legally enforceable but acts like a memorandum of understanding. While having an enforceable agreement would be better, one of Palisade’s primary purposes in entering into the agreement was to give its citizens an opportunity to provide input. In addition, the agreement allowed Palisade to voice its concerns with both the company and the BLM. Through that negotiation process, Palisade was able to prevent development activity on a portion of the company’s lease area that was critical for water protection.
The agreement states that the company will comply with Palisade's watershed regulations and will provide a quarterly water quality monitoring report. In addition, as attachments to the agreement, Palisade and the company negotiated an emergency response plan and a stormwater management plan. Each of those plans pertains specifically to monitoring activity within the watershed and also requires the company to follow best management practices when developing the area.

**Regulations**

Palisade adopted watershed regulations in 1997, prohibiting certain activity in the watershed without first obtaining a permit. Oil and gas activities are covered by the regulations. This is a land use regulatory process that is extra-territorial in nature because Palisade has not annexed the watershed into its borders. This process is authorized by C.R.S. 31-15-707(1)(b). The watershed regulations require applicants to submit an environmental assessment that considers the activity's impact on water resources, vegetation, soils, drainage, wastewater treatment and the water supply in relation to the geographic location of the activity proposed.

Applicants must also provide: i) a re-vegetation, soil erosion control and water quality monitoring plan, ii) a grading plan, and iii) such other information as Palisade requires depending on the location and type of proposed activity.

All of this information, while helpful, does not help Palisade enforce the Regulations once the activity is approved. Because the company's activity will cover 15 square miles within the watershed, monitoring compliance with the regulations will be difficult. To some extent, Palisade must rely on the company and its subcontractors to follow best management practices.

**Result**

Extensive development in the watershed has not begun. Certain oil and gas activities are taking place and Palisade has been fortunate to receive assistance in monitoring those activities from citizens recreating in the watershed area. In fact, Palisade received word from a citizen that a detention pond may have been leaking, then investigated and notified the company of the issue. Immediate action was taken, the leak was halted, and there was no impact to the Town's water. In addition, the company has thus far provided the quarterly water quality monitoring reports promised in the agreement.
Recommendations

- Know your community’s rights when dealing with other governmental entities and participate in the process.
- Make your concerns known to other government entities, the public and especially the industry.
- Bring all of the interested parties to the table to negotiate potential impacts before drilling or other activity begins.

Watershed Plan for Palisade and Grand Junction and Agreement with Genesis Gas and Oil, LLC
Adoption of an Administrative Review Process for Oil and Natural Gas Wells

Issue
The Town had a Special Use Process that required a public hearing prior to approval and drilling oil and natural gas wells. This tended to lengthen the process without changing the outcome for the applicant. Since surface use agreements determined well locations in relation to planned or existing surface development plans and since the state preempts local governments from regulating significant aspects of locating oil and natural gas wells, the Town determined that an administrative process would simplify the approval of new oil and natural gas wells. In addition, to enhance the public's knowledge of the oil and gas industry, educational material was developed to assist in understanding the installation and maintenance requirements of oil and natural gas wells and ancillary facilities.

Resolution
Adopt land use regulations that allow for an administrative review for new oil and natural gas activities in certain circumstances. Develop educational materials to assist the public in understanding the industry and how it may affect them.

Facts
The Town is located north of Denver in southwest Weld County, Colorado and in the heart of the Wattenberg formation, a mineral rich subsurface strata located in northeastern Colorado. The Wattenberg field is one of the largest and most reliable oil and natural gas reservoirs in the nation. This results in a significant number of wells being drilled annually to meet the demand of the Front Range and mid-western United States.

Between the years 2000 and 2007, the Town grew from a population of 2,476 residents to an estimated 7,997 residents and extended its municipal boundary to cover 13 square miles. In December of 2007, the Town had 340 wells located within its municipal boundary (about 1/3 of all wells within Weld County). By the third quarter of 2008, an additional 30 wells were installed with another 28 wells pending approval (an increase of nearly 20%). Each well requires a 200 foot building setback by town regulations which can result in 0.72 acres of land area set aside for each oil and natural gas well, unless twined with other wells (excluding service roads, tank battery and burner setbacks, and land area encumbered by service and collector lines).
Due to rapid development in both the oil and gas and housing industries, conflicts occasionally occurred with regard to the available land area and the various land uses or interests. In addition, the installation of wells post surface development occasionally became contentious and politicized the approval process.

To minimize conflicts, the Town requires developers, surface owners, and the industry operator or mineral interest to enter into a surface use agreement (SUA) prior to developing the surface of the site. Consequently, many of the well locations are predetermined prior to making application to the Town, based on the surface owner's verses the industry or operator needs, and Colorado Oil and Gas Conservation Commission (COGCC) or Town requirements. In some instances, these wells are drilled prior to surface development (residential or commercial development). In other instances, the wells will be drilled after development and urbanization of the site. Since the Town is preempted by the COGCC from denying well sites and the well site locations are usually predetermined in an SUA, the public hearing process unnecessarily lengthened the approval process. To simplify the approval process the Town instituted an administrative process that could be applied in certain circumstances. As part of the process, the Town requires the operator to be proactive and responsive to neighbor concerns by providing notice prior to drilling and an operator contact to answer questions or address concerns. To educate the public regarding the resources of the area, new wells, and the Town's involvement in the approval process, the Town developed an educational brochure.

**Procedure**

The Special Use process requires a pre-application conference for discussion of the submittal and development requirements prior to application. Due to site circumstances, different approaches may be required prior to and during drilling to minimize conflicts with the surrounding property owners and resources related to the site. In some instances, this may also result in an on-site meeting prior to application to the Town. Please also note that, by designating Town staff as the State's Local Designee, the operator is required to contact the Town prior to application with the State, which can assist in addressing site specific circumstances prior to approval of the well site by the COGCC.

Prior to application, the process requires a neighborhood meeting with adjacent property owners. This allows residents with questions or concerns to contact Town or Industry operator prior to the Town's consideration of the permit application. Upon application, staff conducts a site visit and analysis and reviews the application in accordance with the criteria established in the code. This minimizes conflicts and disturbances.
to existing and adjacent uses, resources, and habitat. Provided the request conforms to the code requirements and there are no significant concerns raised by the neighboring property owners or found on site, the application can be approved, or approved subject to conditions by designated Town Staff. If concerns can't be resolved at the staff level, the application can be taken to the Board of Trustees for further consideration. Lastly, prior to drilling, the process requires notice to all adjacent property owners with an Operator contact to address questions, concerns or complaints during the drilling process.

Approximately 28 wells have been approved through the administrative process since its adoption in 2007. As of October 2008, only one complaint has been received regarding a new well site in an urbanized area compared to ten complaints for a similar well site approved through the previous public hearing Special Use Process. The Town's educational brochure available as a handout, PDF, or on our web site "Living with Oil and Natural Gas Development in the Town of Frederick," has also been popular with the community.

Regulations
The Town has procedures for Special Use Review and in certain circumstances Administrative approvals may be granted for new oil and gas wells. The application cost is $1,000. The minimum submittal requirements include a site plan mapping the well location, access, proximity to improvements and habitat, site features, geologic hazards. In addition, the applicant may be required to provide a fencing plan, an emergency response plan, a weed management plan, visual and sound mitigation plans; reclamation plans, a waste management plan, stormwater management plans, and secure access or building permits prior to construction.

The Town also conducts annual inspections of the well sites to verify compliance with Town regulations and minimize attractive nuisances such as trespass, weeds, vandalism, and fencing.

Additional Information
The Town worked with industry and the COGCC to develop public information, outreach and education. This information can be found at the Town of Frederick website or by calling the Town's Planning Department at 303-833-2388 for an electronic or hard copy.
Result
Approximately 30 wells have been approved through the administrative process since its adoption in 2007, with 28 more in process. As of October 2008, only one complaint had been received regarding a new well in an urbanized area compared to ten complaints for a similar drill site approved and drilled through the Special Use Process in late 2007.

Recommendations

- Be proactive with the public and industry/operator.
- Adopt regulations that address the needs of the local government while balancing the interests at stake.

Work with the industry and developers to co-locate and combine well and tank battery pad sites and reduce spacing between wells to minimize consumption of surface lands.

Excerpt from the Town of Frederick’s “Living With Oil and Gas”

Installing a well from start to finish will take as long as five or six weeks. However, if there are multiple well sites to be drilled, then the length of time the rig is on site may be longer. In addition:

- Depending on the location, an access road may be constructed.
- A three-acre area surrounding the drill site will be fenced off.
- Excavation equipment will be moved to the site to prepare for drilling.
- Drilling rig and necessary equipment will move in, and the location will be built (placed).
- Surface casing is set in the uppermost part of the hole in order to protect fresh water zones and formations.
- Drilling (which continues 24 hours per day) lasts six to eight days, depending on the depth of the well.
- When drilling is finalized, steel casing is lowered into the hole and cemented into place.
- Drilling rig and equipment are moved off location, and the completion operation begins. This requires a smaller rig used to fracture or “frac” the well, temporary water tanks and pump equipment. This operation is usually completed within 24 – 48 hours.
- Oil, water and gas flow to the surface through the wellhead and into a buried steel flowline to the production facilities.
- Production facilities, including oil and water storage tanks, a separator and a gas metering system, are installed on the surface.
The Colorado Oil and Gas Conservation Commission (“COGCC”) is an agency of the State of Colorado. In 2008, the COGCC became newsworthy because of its Herculean effort to revise its oil and gas regulations. This effort should be compared to the time and effort a local government spends reviewing and revising its zoning or land use code but on a statewide level. It was incredibly time consuming because of the large number of stakeholders seeking to have their voices heard on many complex and important issues in an industry with vast financial resources.

The COGCC is comprised of a board of nine people who are entrusted with the power to regulate oil and gas development in the state including rule making to carry out this authority. By law one of the board members must be a local government official. The board adopts regulations, sets policy and conducts hearings, while the staff implements such regulations and policies on a daily basis and make most permitting decisions.

The mission of the COGCC is to promote the responsible development of Colorado’s oil and gas natural resources. Responsible development results in:

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

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

The COGCC currently permits or otherwise approves wells, pits, centralized exploration and production waste management facilities, and production facilities that service multiple wells. The COGCC’s regulatory programs include:

- Permitting and tracking oil and gas wells
- Permitting the pits that often accompany such wells
- Approving certain other oil and gas facilities
- Ensuring that operators comply with various development and operational requirements that address safety, aesthetics, noise control, and waste management
- Overseeing interim and final reclamation
- Requiring remediation of contamination
- Investigating complaints.

Most permitting decisions are made by staff, but certain parties may appeal them to the commission. When a
decision is appealed, the commission conducts a hearing to decide whether the permit should be issued and under what conditions.

It is during this process that local governments can become involved. If the oil and gas activity takes place within your community, the COGCC is charged with providing notice to your Local Government Designee (the Local Government Designee is the primary contact person for your community). Upon contact, the local government may comment on the application and make recommendations to the COGCC regarding the activity that is to occur. If your community does not participate, it may lose an important opportunity to make an impact before the activity begins. In fact, a local government must provide the COGCC with written notice of its Local Government Designee. Unless such notice is provided, then the various rights of the Local Government Designee do not apply.

These are just a few of the COGCC’s functions. It is important for any local government to get to know the COGCC rules and understand the local government's rights under the rules. It is then imperative for the local government to participate in the COGCC process to the extent possible. By using the COGCC process and then working with the industry, the local government will work more efficiently to protect the health and safety of its citizens.

Special rights of local governments under the COGCC regulations:
- The right to participate in the development of comprehensive drilling plans (Rule 216);
- Special notice of permit applications and location assessments, permit and assessment decisions, and the commencement of heavy equipment operations (Rule 305);
- The right to extend the comment period on certain applications from 20 to 30 days (Rule 305);
- Consultation with operators regarding the location of roads, production facilities, and well sites (Rule 306);
- The right to request CDPHE consultation regarding public health, safety, welfare, and environmental concerns (Rule 306);
- The right to request a variance from the COGCC’s regulations (Rule 503);
- The right to request a commission hearing on the approval of a drilling permit or location assessment (Rule 503);
- The right to request a local public forum in connection with an application for increased well density (Rule 508);
The Commission believes that the resulting final rules responsibly address the recent increase in oil and gas development, implement the 2007 legislation, and update the prior rules where appropriate. It also believes that these rules will ensure the protection of the public health, safety and welfare, including the environment and wildlife resources, while also fostering the responsible, balanced development, production, and utilization of oil and gas resources. C.R.S. § 34-60-102(1)(b). These rules will, among other things:

- Provide additional protection for public health and the environment through several new measures. These measures include requirements that operators maintain an inventory of chemicals kept onsite for use downhole, restrict operations in areas near drinking water sources, install emission control devices on certain equipment located near homes, schools, and other occupied buildings, and implement additional stormwater management measures. See Rules 205, 317B, 805, and 1002;

- Minimize adverse impacts on wildlife resources by requiring operators to work with CDOW regarding site-specific mitigation for sensitive wildlife habitat (mostly located in Western Colorado) and to avoid the most critical habitat areas where technically and economically feasible. See Rules 1201-1205;

- Provide for consultation with the CDPHE and CDOW in appropriate circumstances. These consultations will result in recommendations to the COGCC Director on appropriate conditions of approval to protect public health, the environment, and wildlife. For wildlife conditions, the Director’s decision will be subject to surface owner consent. See Rules 306, 1202;

- Provide for timely efficient permitting through measures such as limiting the duration of CDPHE and CDOW consultation and public comment, expediting approvals under certain circumstances, and Commission review if permitting decisions are not timely issued. The rules also omit earlier proposals to develop an expansive new application form and require wildlife surveys. See Rules 216, 303, 305, 306, and 1201;

- Encourage landscape level planning through operator-initiated Comprehensive Drilling Plans, which will facilitate early and collaborative review and in certain circumstances aggregate and expedite regulatory approvals. While such Plans will be optional, the rules contain incentives for their use. See Rule 216;

- Provide for enhanced transparency by notifying surface owners, the owners of nearby surface property, local governments, the CDPHE and CDOW, and the public of permit applications and providing them with a minimum 20-day period to submit comments to the Director. See Rule 305; and

- Avoid a one-size-fits-all approach by tailoring numerous rules to the individual circumstances of the location or region. This includes rules concerning the requirements for compliance checklists, permit applications, notice, drinking water protection, odor control, and wildlife habitat protection. See Rules 206, 303, 305, 317B, 318A, 318B, 805, and 1202-1205.

-Statement of Basis, Specific Statutory Authority, and Purpose, Dec. 11, 2008 Rules
“This was the most extensive rulemaking hearing in the Commission’s history. All told, the Commission held twenty-two days of hearings, with some the days lasting almost twelve hours. The Commission heard approximately twelve hours of public comment by approximately two hundred people. It heard from approximately one hundred sixty party and staff witnesses and heard approximately seventy-five hours of testimony, cross, examination, and answers to Commissioner questions on twelve days of hearings. The Commission also considered more than thirty legal motions and conducted nine days of initial and final deliberations totaling more than seventy additional hours. Throughout the hearing, the Commission listened to all of the witnesses, questioned aspects of witnesses’ written testimony, directed its staff to work with parties, and asked clarifying questions as necessary. The Commission repeatedly extended the rulemaking hearing in order to hear additional testimony and argument and conduct additional deliberations. It also directed and approved numerous changes to the draft rules that reflect input from the parties.”

-Statement of Basis, Specific Statutory Authority, and Purpose, Dec. 11, 2008 Rules

COGCC Resources and Links

Web home page  http://cogcc.state.co.us/ for final amended rules and more

Local government data  http://cogcc.state.co.us/Infosys/lgd/searchform.cfm
(Find approved and pending permits by local government, the Local Governmental Designees, and more)

GIS Online – maps  http://cogcc.state.co.us/infosys/Maps/gismain.cfm
WORKING WITH THE INDUSTRY

Collaborative Oil & Gas Development in Colorado

Written by Robert Spencer, Wattenberg Landman, Anadarko Petroleum Corporation, 2009

Introduction

As one of the largest natural gas producers in Colorado, Kerr-McGee Onshore Oil and Gas, LP, a wholly owned subsidiary of Anadarko Petroleum Corporation (KMG) is proud to be working with the Department of Local Affairs of the State of Colorado on educating and informing local governments on the issues and realities that local governments and industry face when oil and gas development reaches their jurisdictional boundaries. This opportunity has opened the door to an extended discussion regarding natural gas and oil production in our local Colorado communities.

As the global demand for energy resources has grown, our state and nation have become more focused on finding and producing natural gas and oil within our borders, and the Rocky Mountain Region is blessed with an abundant supply. The Wattenberg field, which runs along the Front Range of Northeast Colorado, is the eighth-largest producing natural gas field in our nation. Local governments and the general public are very interested in how we are developing these local resources, while minimizing impact on the surface. This interest was evidenced by the overwhelming reception KMG (Anadarko Petroleum) received during the workshop covering natural gas and oil development in the Wattenberg field at last year’s American Planning Association’s (APA) Annual Colorado Chapter Conference in Breckenridge.

KMG and the Wattenberg field have garnered attention from other areas of Colorado for many reasons. The Wattenberg field is home to Weld, Larimer, Boulder, Adams and Broomfield Counties and over twenty-three local municipalities as depicted on the attached map, all of which are in various stages of aggressive commercial, residential and municipal infrastructure development. Within the Wattenberg field, KMG has access to approximately 550,000 net acres and operates roughly 4,000 wells which produce an average of 280 million cubic feet of natural gas equivalent per day (MMCfe/d). That’s enough energy each day to supply approximately 1.5 million average American homes, and much of this clean-burning natural gas is delivered to local homes and businesses along the Front Range.
Above please note the diversity of land use and the proximity of local municipalities within the Wattenberg field.

With burgeoning communities and continued urban development in the Front Range and across Colorado, our goal for our participation in this Department of Local Affairs handbook is to educate and inform professional planners, and local government staff and elected officials about how collaborative land use and surface development can successfully coexist.

The Wattenberg field provides an excellent case study for this discussion due to the mixture of oil and gas and urban development. Throughout the four decade development of the Wattenberg field, KMG has cultivated positive working relationships with local governments. As development of these areas has intensified, the nature of these relationships has evolved into cohesive partnerships that seek to balance and defend all parties’ core interests. These interests are typically preservation of the surface while simultaneously producing natural gas and oil.
Throughout 2008 the Colorado Oil and Gas Conservation Commission (COGCC) was charged with amending the existing rules and regulations. They succeeded in adopting a newly amended set of rules as of December 17, 2008. The new rules will take effect April 1, 2009 on non-federal lands and May 1, 2009 on federal lands. A significant amount of changes have been made to the new amended rules, changes that seek to balance oil and gas development and other priorities including the environment, wildlife and public health, safety and welfare.

One of the more notable changes in the rules involves oil and gas permitting and the introduction of Comprehensive Drilling Plans. Comprehensive Drilling Plans (CDP(s)) are intended to identify foreseeable oil and gas activities in a defined geographic area, facilitate discussions about potential impacts, and identify measures to minimize adverse impacts to public health, safety, welfare, and the environment, including wildlife resources. A CDP will typically cover all planned future oil and gas activities within a defined geographic area for a single operator and provides the forums to facilitate the essential discussions necessary to oil and gas development. As a part of the CDP each operator is required to invite the Colorado Department of Public Health and Environment (CDPHE), the Colorado Division of Wildlife (CDOW), the local government designee(s) and all surface owners to participate in the development of the CDP proposed by an operator. This invitation for agency and landowner participation ultimately facilitates the identification of potential impacts and the development of conditions of approval for each CDP resulting in the minimization of adverse impacts affecting any interested parties to the CDP. (RULE 216 AMENDED COGCC RULES AND REGULATIONS)

Although CDPs are now being pursued by many of Colorado's oil and gas operators due to the high level of oil and gas development that is planned in rural areas statewide, they remain voluntary because CDPs are not practicable for all geographic areas within Colorado co-existing with oil and gas development. The Wattenberg field, the featured oil and gas field for this article, is in an area with high density commercial, residential and municipal development. The areas in which KMG develops for oil and gas within the Wattenberg field are highly subdivided and would likely make the creation of a CDP impracticable due to the complexity and number of interested parties involved.

When an oil and gas operator voluntarily foregoes the CDP process due to the complexity and impracticability of creating a CDP, the oil and gas operator will still be required to file with the COGCC a Permit to Drill (COGCC Form 2) and an Oil and Gas Location Assessment (COGCC Form 2A). With each of these filings the CDPHE, the CDOW, the local governmental designee(s) and the surface owners(s) will receive notice and will be afforded an opportunity to consult with the oil and gas operator as set forth in the amended COGCC rules and regulations. Although the standard
notice and consultation required by the COGCC may be enough for some local governments, to maintain maximum involvement in oil and gas development, a county or municipality, as an alternative to a CDP, can regulate oil and gas operators by means of the Use-by-Special Review process popularly adopted by Weld County and many of the local municipal governments in Colorado’s Front Range communities. (RULES 303, 305, 306 AMENDED COGCC RULES AND REGULATIONS)

County and Municipal Government Use by Special Review

Use by Special Review

KMG and its predecessors have continually been developing strong relationships with Weld County and municipal governments within the Wattenberg field since March 20, 1970, when the Wattenberg field was officially discovered as having commercial production of oil and gas. Moreover, KMG has over 8 years of experience working with Weld County and municipal governments on Use by Special Review applications. KMG received its first of many Use by Special Review approvals from the Town of Frederick, Colorado in July of 2000.

Throughout these eight years, KMG has become very familiar with what is of most interest to professional planners, county/municipal government staff, elected officials and local residents. KMG has found that by deferring specific issues already addressed by the amended COGCC oil and gas rules, county and municipal governments can then focus their resources on establishing proactive enforceable Use by Special Review regulations that target the issues that are of most concern to local residents, including: construction traffic and routing, noise mitigation, dust mitigation, weed control, stormwater drainage, safety and spill prevention, fire protection, project timing, proof of mineral ownership by operator to conduct operations, surface owners agreement (if applicable) and the approved COGCC permits to drill.

An additional observation by KMG over the years has been the evolution of the Use by Special Review regulations adopted by the county and municipal governments. In the infancy and adolescence of the Use-by-Special Review regulations, emphasis was placed on conducting two public hearings before the county or municipal Planning Commission and governing board to effectuate approval on a Use by Special Review application. This process has proven to be time consuming, inefficient and wasteful of local government resources. While the majority of local government jurisdictions adhere to the public hearing process, a minority of local government jurisdictions have recently adopted an administrative approval process circumventing the public hearing process, and in the alternative municipal governments have required the oil and gas operator to hold a neighborhood/community meeting affording residents a non-political, informal forum for voicing concerns, comments and questions directly to the oil and gas operator. KMG and the municipal governments participating in the administrative Use by Special Review approval process have overwhelmingly deemed this change
successful while achieving the goal of minimizing oil and gas impacts and preservation of the surface.

As discussed earlier, the COGCC recently underwent an extensive process by which they amended Colorado’s oil and gas rules. It is important when deliberating and setting local policy/drafting local regulations related to oil and gas development that community leaders and planners exempt oil and gas operators from the Use by Special Review process if a CDP is being created with COGCC and municipal government consultation and comment. It is also important that community leaders and planners keep in mind that federal and/or state laws may preempt local regulations, which is a topic also discussed in this handbook. (The amended rules can be found on the COGCC’s website.

**Johnstown, CO Use by Special Review Application & Regulations**

As appendices to this section of the handbook please find a KMG Use by Special Review Application for the Gray Wells located within the Town of Johnstown. Additionally, please find a full copy of the Johnstown regulations that pertain to oil and gas development. These items are real, recent products of coordination between KMG, Johnstown town planners and elected officials. They represent what both the local municipalities and oil and gas companies should mutually request and expect from each other during the Use by Special Review process for oil and gas operations.

What is most notable in this example is that it addresses the most common questions and concerns that planning professionals, elected officials and citizens have regarding oil and gas development in their area. These questions typically include but are not limited to, construction traffic and routing, noise mitigation, dust mitigation, weed control, stormwater drainage, safety and spill prevention, fire protection, project timing, proof of mineral ownership by operator to conduct operations, surface owners’ agreement (if applicable) and the approved COGCC permits to drill. Also note in this example that residential and commercial development are approximately ½ mile from the above referenced wellsite location. As a result of this distance, noise mitigation was a non-issue, but was carefully evaluated by KMG before foregoing noise mitigation measures. Each Use by Special Review application is unique. Variations in surface location and proximity to commercial, residential and municipal development tend to be of more interest as oil and gas surface operations reduce their proximity to the developed areas.

**Conclusion**

As a responsible operator, KMG strives to work collaboratively with local surface owners, governmental and regulatory agencies to develop the vital domestic energy resources available in the Wattenberg field, alongside local farms, ranches, residential communities, wildlife and other development along Colorado’s growing Front Range. To learn more about Anadarko, visit [www.anadarko.com](http://www.anadarko.com).

*Written by Robert Spencer, Wattenberg Landman*
APPENDIX A FREQUENTLY ASKED QUESTIONS

1. **WHERE CAN I FIND THE RECENTLY ADOPTED COLORADO OIL AND GAS CONSERVATION COMMISSION RULES?**

   The Colorado Oil and Gas Conservation Commission adopted the revised rules on December 17, 2008. All information regarding the rule making procedures, the final rules and their various effective dates can be found at the COGCC website. http://cogcc.state.co.us/ The rules can also be found at 2 Colorado Code of Regulations § 404-1.

2. **WHICH COMMUNITIES ARE CONSIDERED LEADERS IN REGULATING OIL AND GAS?**

   There are many communities who could be considered leaders in regulating oil and gas. We would recommend reviewing the regulations of communities listed elsewhere in the Appendix, and check the DOLA website for updated links to local government regulations and programs.

3. **WHERE CAN I FIND INFORMATION ABOUT NATURAL RESOURCE EXTRACTION INDUSTRIES?**

   There are several websites that contain basic information about the oil and gas industry. Please review the following:

   Natural Resources Law Center – [Intermountain Oil and Gas Best Management Practices Website](http://www.centerwest.org/publications/index.php) (this website contains extensive resources and links)

   Colorado Oil and Gas Association – links to studies and information about the industry.

   Center for the American West – publications about energy conservation.

   La Plata County Energy Council
   [http://www.energycouncil.org/gasfacts/cogcc.htm](http://www.energycouncil.org/gasfacts/cogcc.htm)
4. WHAT ARE THE ECONOMIC IMPACTS TO THE STATE FROM THE OIL AND GAS INDUSTRY?

   Colorado Energy Research Institute Oil and Gas Impact Analysis
   http://www.ceri-mines.org/CERIOil&Gas.pdf

5. WHAT ARE THE AVERAGE COSTS TO INSTALL AN OIL OR GAS WELL?

   It depends on many factors. A review of local industry financial reports may provide guidance. For a study on the costs to drill a natural gas well go to:

6. WHAT ARE "TLQs"?

   TLQ stands for Temporary Living Quarters. These are temporary housing units used by the oil and gas industry to house workers in the field.

7. WHERE CAN I FIND INFORMATION ABOUT WORKING WITH CONSULTANTS?

   http://dola.colorado.gov/dlg/osg/docs/rfqrfp.pdf

SOURCES OF ADDITIONAL INFORMATION

   Colorado Oil and Gas Conservation Commission
   http://oil-gas.state.co.us

   Colorado Department of Natural Resources
   http://dnr.state.co.us

   Colorado Division of Wildlife
   http://wildlife.state.co.us

   Colorado Department of Public Health and Environment
   http://www.cdphe.state.co.us

   Colorado Department of Local Affairs
   http://dola.colorado.gov

   State of Colorado
   http://www.colorado.gov
Bureau of Land Management - Colorado

United States Forest Service
http://www.fs.fed.us

Living With Oil and Natural Gas in the Town of Frederick

Garfield County Oil and Gas Department Website

La Plata County Natural Resources – Oil and Gas Website
http://www.co.laplata.co.us/

**LINKS TO SAMPLE COMMUNITIES WITH REGULATIONS**

Saguache County
http://www.saguachecounty.net/

Rio Blanco County
http://www.co.rio-blanco.co.us/development/

La Plata County
http://www.co.laplata.co.us/departments_and_elected_officials/planning/natural_resources_oil_gas

Archuleta County

Gunnison County
http://www.gunnisoncounty.org/planning_regulations_guidelines.html

Mesa County
http://www.mesacounty.us/planning/land_dev_code.aspx

Garfield County

Town of Frederick

Town of Palisade Watershed Plan
http://genesispalisadecdp.org/History.htm
INTRODUCTION: OPERATIONAL PREEMPTION

When creating local regulations for oil and gas operations, it is important to be aware of the areas in which Congress, the Colorado state legislature, and federal and state agencies, including the Colorado Oil and Gas Conservation Commission, have enacted laws and regulations. Understanding the standards set in these laws and regulations is important in order to avoid “operational preemption” of local regulations.

Preemption is a doctrine adopted by the United States Supreme Court that holds that certain matters are of such a national character that federal laws preempt - or take precedence over – conflicting state laws. Similarly, state law can preempt local regulations if the matter being regulated is a matter of exclusive, or at least mixed, state interest. As expressed by the Colorado Supreme Court, "the purpose of the preemption doctrine is to establish a priority between potentially conflicting laws enacted by various levels of government." *Bd. of County Comm’rs v. Bowen/Edwards Assocs., Inc.*, 830 P.2d 1045, 1055 (Colo. 1992).

At the local level, “operational preemption” occurs when the application of the ordinances or regulations of the local government materially impede or destroy the interest of the state or federal government. The question that local governments should ask themselves most frequently is: Do the “on the ground” effects of the local ordinances or regulations conflict with the application of the state or federal statute?

This section of the handbook is designed to provide the reader with a summary of those federal and state laws and regulations of which local government officials should be aware in order to avoid obvious conflicts and operational preemption.

STATE STATUTES AND REGULATIONS GOVERNING OIL AND GAS EXPLORATION AND DEVELOPMENT

Oil and Gas Conservation Act, C.R.S. §§ 34-60-101 et seq.

The Oil and Gas Conservation Act (the “Act”) declares that it is in the public interest to:

- Foster responsible, balanced development, production and utilization of the natural resources of oil and gas in the State of Colorado in a manner consistent with protection of public health, safety, and welfare, including protection of the environment and wildlife resources;
- Avoid waste in the production and utilization of oil and gas;
- Protect the rights of owners and producers in a common source or pool of oil and gas; and
- Balance oil and gas development with the protection, preservation,
enhancement and management of wildlife and their environment.

Colorado Oil and Gas Commission. The Act creates the Colorado Oil and Gas Conservation Commission, which is charged with enforcing the Act. Since July 2007, the Commission has consisted of nine voting members, seven of which are appointed by the Governor. Of these seven:

- At least two must be from the Western Slope;
- Three members must be from the oil and gas industry;
- One member must have substantial experience or training in environmental/wildlife protection;
- One member must have formal training or substantial experience in soil conservation or reclamation; and
- One member must be actively engaged in agricultural production and also be a royalty owner.
- The final two voting members are the executive directors of the Colorado Department of Public Health and Environment ("CDPHE") and the Colorado Department of Natural Resources.

Powers of the Commission. The Commission keeps track of the ownership of oil and gas wells in the state and generally oversees production, sales, purchases, acquisition, storage, transportation, and refining and processing of oil and gas in the state. The Act includes sections governing drilling units and pooling interests, agreements for development and unit operations, and payment of proceeds. Importantly, the Commission is charged with creating regulations consistent with the Act.

Reasonable Accommodation. Oil and gas operations begun after September 1, 2007 must comply with the new “reasonable accommodation” statute found at C.R.S. § 34-60-127. This statute requires an operator to accommodate surface owners “by minimizing intrusion upon and damage to the surface of the land.” This means “selecting alternative locations for wells, roads, pipelines, or production facilities” or employing alternative means of operation that prevent, reduce or mitigate the impacts of oil and gas operations on the surface, where such alternatives are “technologically sound, economically practicable, and reasonably available to the operator.” This statute expressly does not affect the authority of local and county governments to regulate land use related to oil and gas operations. Instead it serves as an independent basis for protection of surface owners’ rights.

Habitat Stewardship. In 2007, the state legislature enacted another new section of the Act in which it charged the Commission to “administer [the Act] so as to minimize adverse impacts to wildlife resources affected by oil and gas operations.” See C.R.S. § 34-60-127. In addition to its other duties, the Commission is now required to:

- Establish a consultation procedure with the Wildlife Commission and the Division of Wildlife on decision-making that impacts wildlife resources;
- Provide for Commission consultation and consent from the affected surface owner on permit-specific conditions for wildlife habitat protection;

- Implement best management practices to conserve wildlife resources; and

- Create rules to establish standards for minimizing adverse impacts to wildlife resources affected by oil and gas operations and to ensure proper reclamation of wildlife habitat both during and following operations. The rules are to encourage operators to utilize comprehensive drilling plans and geographic area analysis strategies to provide for orderly development of oil and gas fields and minimize surface disturbance and fragmentation in important wildlife habitat by incorporating best management practices.

- This section does not affect the authority of local and county governments to regulate land use related to oil and gas operations.

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**Colorado Oil and Gas Conservation Commission Regulations, 2 C.C.R. 404-1**

The regulations created by the Colorado Oil and Gas Commission (“COGCC”) pursuant to the authority granted to it by the Act are found at 2 Colorado Code of Regulations 404-1 (the “Rules21”). They can be found on the COGCC website under Final Amended Rules. The following is a brief overview of the major elements included in the Rules, with particular attention paid to those areas in which local governments have previously enacted or may wish to consider enacting regulations. This overview is intended to alert local government officials to the areas in which the state has enacted regulations in an effort to avoid operational preemption. Local governments may be especially interested in Rule 214, which permits them to individually designate a Local Government Designee; and Rule 305, which allows them to comment on any Application for Permit-to-Drill (Form 2) or Oil and Gas Location Assessment (Form 2a) except for activities occurring on federal or Indian lands. After consideration, these comments may be adopted as conditions of approval for either Form 2 or Form 2a. The reader is encouraged to consult the Rules themselves for further detail.

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21 These summaries are based on the final Rules adopted by the COGCC in 2008. We expect legal challenges to the Rules and therefore recommend consulting with your legal representative to determine the legal status of the Rules.
Series 200, General Rules. After a lengthy definitions section, the Rules begin with a series of general rules, including the following sections that have particular importance for local governments:

Rule 205. Access to Records. New Subsections. The books, records, inventories and copies of the reports required by the Commission (including, for example, gas meter calibration and chemical inventories) must be kept on file and available for inspection by the Commission for a period of five years. (Please see the Rule for details.)

Rule 206. Reports. The Commission requires those companies connected to oil and gas operations to file periodic reports or checklists containing information required by the Commission or the COGCC Director (the “Director”). In Garfield, Mesa and Rio Blanco Counties, this includes a Pollution Prevention Checklist. (Please see the Rule for details.)

Rule 208. Corrective Action. The Commission must require correction of any condition that is causing or is likely to cause waste or pollution and must require the plugging and abandonment of any well no longer used or useful in accordance with a reasonable plan.

Rule 210. Signs and Markers. Operators are required to mark each well in a conspicuous place from the time of initial drilling until final abandonment, in accordance with the rules found in this section. All tanks with a capacity equal to or greater than ten (10) barrels must be labeled.

Rule 214. Local Governmental Designee. Each local government (including counties, home rule or statutory cities, towns, territorial charter cities or cities and counties, or any Title 32 special district) may designate one of its offices to receive, on its behalf, copies of all documents required to be filed with the local governmental designee pursuant to the Rules. This Rule requires that the local government provide the Commission with contact information for the office designated. The designee then has the responsibility to ensure that any documents provided to it are properly distributed to appropriate persons and offices of the local government.

Rule 216. Comprehensive Drilling Plans. New Section. Operators are encouraged to submit Comprehensive Drilling Plans (“CDPs”), which are intended to facilitate discussions about potential impacts and identify measures to minimize adverse impacts. Operators may submit a proposed CDP that describes the operator’s foreseeable oil and gas development activities in a specified geographic area within a geologic basin. The CDP is a customized plan based on the specific location described therein. The CDP can operate as an approved variance from the Rules. Information to be provided includes proposed oil and gas locations, including all access roads and gathering systems, drainages and stream crossings, plus existing and proposed buildings, roads, utility lines, pipelines, mines, oil or gas wells, water wells, and Division of Wildlife’s Natural Diversity Information Source riparian data set. Operators must invite the CDPHE and the Division of Wildlife to participate in the development of a CDP.
and are encouraged to invite the local government designee and surface owners to participate. The Director must “provide the list of conditions of approval [for the CDP] to the local government designee and encourage the local government to utilize the results in its approval of activities.” An accepted CDP is valid for five years.

**Series 300, Drilling, Development, Producing and Abandonment.** Of particular note in this series are the following:

**Rule 302. COGCC Form 1. Registration for Oil and Gas Operations.** Anyone conducting operations subject to the Act must register with the COGCC.

**Rule 303. Requirements for Form 2, Application for Permit-to-Drill, Deepen, Re-enter or Recomplete, and Operate; Form 2A, Oil and Gas Location Assessment.** Before commencing operations for the drilling or reentry of any well, an Application for a Permit-to-Drill (“APD”) must be filed with and approved by the Director. For any new oil and gas location, except gathering lines or those locations covered by a Comprehensive Drilling Plan, an Oil and Gas Location Assessment must be filed. Items that may be required for the APD include photographs, equipment list, scaled vicinity drawing, topographic maps showing surface waters, riparian areas and roads, land use designation, construction layout drawing and location cross section plot, proposed wellbore trajectory with bottom-hole locations, mitigation activities and presumptive conditions of approval. Please note that the Permit-to-Drill is “binding with respect to any operationally conflicting local government permit or land use approval process.” Please see the Rule for specific details.

**Rule 305. Notice, Comment, Approval. Revised.** This rule was completely revised. The Local Government Designee, the surface owner or any owner who receives notice, may now provide comment on any APD or Oil and Gas Location Assessment prior to approval. Those comments may be incorporated as conditions into the approved permit to drill so long as the conditions are “technically and economically feasible”. Upon issuance of the Permit-to-Drill or approval of the Oil and Gas Location Assessment, the Commission must provide notice to those providing comment of the Director's decision to include or exclude requested conditions. Those providing comment and the operator may then object to the inclusion or exclusion of certain conditions and request suspension of the Permit-to-Drill or approved Oil and Gas Location Assessment as well as a hearing. Please see the Rule for specific details.

**Rule 306. Consultation. Revised.** Operators are required to consult in good faith with surface owners prior to starting operations with heavy equipment on their land.

Local governments that have identified a Local Government Designee and that have indicated to the Director a desire to consult must be given an opportunity to engage in consultation concerning an APD (Form 2) or an Oil and Gas Location Assessment, Form 2A, regarding the location of roads, production facilities and well sites prior to commencing operations with heavy equipment.
Under certain circumstances, an operator must also consult with the Division of Wildlife and/or CDPHE. Please see the Rule for additional details concerning each of these consultation requirements.

Rule 317B. Public Water System Protection. New. If the proposed project is in an area identified on COGCC’s Public Water System Surface Water Supply Area Map (located on its website as an appendix to the Rules), oil and gas operations must comply with additional restrictions when located within three defined "buffer zones". The three zones are the "Internal Buffer", the "Intermediate Buffer" and the "External Buffer". The buffer zone is measured based on the surface location and "shall not apply to subsurface boreholes and equipment or materials contained therein." The Internal Buffer prohibits all drilling, completion, production and storage operations within 300 feet of any Surface Water Supply Area or Classified Water Supply Segments unless the operator obtains a variance. When operations occur within the Intermediate Buffer or External Buffer, the Rule requires operators to comply with certain additional performance standards. These performance standards and additional measuring testing requirements also apply to existing oil and gas operations present within these buffer zones. Please see the Rule for specific details regarding these performance standards and which water sources are protected.

Rule 318. Location of Wells. Wells 2500 feet or greater in depth must be located at least 600 feet from any lease line\(^{22}\) and at least 1200 feet from any other producible\(^{23}\) or drilling oil or gas well when drilling to the same common source of supply. Wells with a depth less than 2500 feet must be located at least 200 feet from any lease line and at least 300 feet from any other producible oil or gas well or drilling well in that source of supply, unless an exception has been granted. The Rule contains specific distance requirements when drilling near a mine.

Rule 318A, Greater Wattenberg Area Special Well Location, Spacing and Unit Designation Rule. In the Greater Wattenberg Area, or GWA, which is located primarily in Weld County, the COGCC has provided for drilling within described surface drilling locations ("GWA windows"). Please see the Rule for further details.

Rule 319. Abandonment. The COGCC has established specific rules concerning the plugging of abandoned oil and gas wells and for shut-in and temporary abandonment of wells. Please refer to the Rule for details.

Rule 321. Directional Drilling. If an operator intends to drill directionally, the details must be included in the application for Permit-to-Drill. This Rule describes the information required for the application and further requires the submission of a Drilling Completion Report within 30 days after drilling has been completed.

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\(^{22}\) Definition: the boundary of an existing oil and gas lease.

\(^{23}\) A well from which oil or gas could still be removed.
Rule 323. Open Pit Storage of Oil or Hydrocarbon Substances. Except for emergencies, storage of oil or other produced liquid hydrocarbon substances in earthen pits is considered waste and not permitted.

Rule 324A. Pollution. This Rule provides that the “operator shall take precautions to prevent significant adverse environmental impacts to air, water, soil, or biological resources to the extent necessary to protect public health, safety, welfare, including the environment and wildlife resources taking into consideration cost-effectiveness and technical feasibility to prevent the unauthorized discharge or disposal of oil, gas, exploration and production waste, chemical substances, trash discarded equipment or other oil field waste.” Pollution standards for water are provided by reference to the standards of the state Water Quality Control Commission. For air pollution, the Rule references the laws, regulations and permits of the Air Quality Control Commission, as well as “any other local or federal agency with authority for regulating air quality associated with such activities.” Please refer to the Rule for specific details.

Rule 325. Underground Disposal of Water. Written authorization from the Director is required for the underground disposal of water or any other fluids into a Class II well, or any well regulated by the Commission. The Director may refuse authorization when the Director has “reasonable cause to believe that the proposed disposal well could result in a significant adverse impact on the environment or public health, safety and welfare.” The Rule describes the information required in the application.

Rule 333. Seismic Operations. This Rule requires an approved form for performing shothole drilling or recording operations. It requires consultation with the surface owner, imposes setback requirements and includes guidelines for drilling and plugging. Financial assurance is required, and when seismic operations are complete the land must be reclaimed.

Series 400, Unit Operations, Enhanced Recovery Projects, and Storage of Liquid Hydrocarbons. The Rules in this series require written authorization from the Commission prior to beginning enhanced recovery operations, cycling, or cycling operations, and operations for the storage of gaseous or liquid hydrocarbons.

Series 500, Rules of Practice and Procedure. The Rules in this series govern all proceedings other than those initiated by the Commission and administrative variance requests. They provide that relevant local governments may request a hearing on an Oil and Gas Location Assessment, Form 2A. If an application seeks more than one well site per 40 acres, a public hearing is required. The technical requirements that serve as

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24 “Enhanced recovery” refers to any injection of natural gas, water, or other fluids into an oil or gas reservoir to increase pressure or slow pressure drop in order to increase the recovery of oil or other hydrocarbons from the reservoir.

25 “Cycling” is another type of enhanced-recovery process used to maintain pressure in a gas reservoir.
the basis for approval or denial of the application concern preventing waste, avoiding the drilling of unnecessary wells, and protecting the rights of parties involved in oil and gas production. Of particular interest to local governments are two new rules added in 2008:

Rule 513. Geographic Area Plans. New. This provision permits the Commission, after consulting with the Colorado Division of Wildlife, CDPHE and Local Government Designees, to adopt basin-specific rules to address “unique geologic or hydrologic features.” When adopting basin-specific rules, the Commission must consider "local government comprehensive plans or other local government long-range planning tools."

Series 600, Safety Regulations. Topics covered in this series include setbacks from development, specific safety rules for crude oil and condensate tanks, fire prevention and protection, air and gas compressors, hydrogen sulfide gas, and coalbed methane wells (The Commission adopted new Rule 608 with safety regulations that apply specifically to coalbed methane wells).

Rule 603. Drilling and Well Servicing Operations and High Density Area Rules. This Rule explains the setback requirements across the state and in high density areas. Generally, at the time of initial drilling of the well, the wellhead must be located 150 feet or 1 ½ times the height of the derrick, whichever is greater, from any building unit, public road, major above-ground utility line or railroad. A well must be a minimum of 150 feet from the surface property line.

High density areas are determined at the time the well is permitted, calculating the number of building units within a 1000-foot radius from the wellhead or production facility. Thirty-six building units within that radius, or 18 building units within any semicircle of the 1000-foot radius, constitute a high density area. Platted building units may be counted toward the requirement if 50% of the platted units have building units under construction or already constructed. In high density areas, wellheads shall be no less than 350 feet from any building unit, educational facility, assembly building, hospital, nursing home, board and care facility or jail. Please refer to the Rule for further detailed information.

Series 700, Financial Assurance and Environmental Response Fund. The Rules in this series are intended to “ensure the performance of certain obligations imposed by the Act” and includes Rules explaining the use of the Environmental Response Fund to address issues related to orphaned wells and other authorized environmental activities. Rules 703 through 708, plus 711 and 712, specify the amount of the financial assurance to be provided based on the type of activity. Rule 710 provides that the Oil and Gas Conservation and Environmental Response Fund must be maintained in an amount not to exceed $4 million, with an adequate balance in the fund to address environmental response needs.
Series 800, Aesthetic and Noise Control Regulations. The Rules in this series regulate noise, lighting, visual impacts, odors and dust. Of particular note in this series are the following:

Rule 801. Introduction. This Rule explains that any local government can apply to the Commission for a determination that the Rules in this section shall not apply to oil and gas activities within the local government’s boundaries based on a showing by the local government that “because of conditions existing therein” the enforcement of these Rules is not necessary within its boundaries for the protection of public health, safety and welfare.

Rule 804. Visual Impact Mitigation. This Rule requires all production facilities to be painted in a color that is slightly darker than the surrounding landscape by September 1, 2010.

Rule 805. Odors and Dust. New This Rule prohibits oil and gas facilities from "being operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare." The Rule places specific limitations on condensate tanks, crude oil and produced water tanks, glycol dehydrators, pits and pneumatic devices. The Rule requires "green completion practices" for certain well completions based on the pressure, formation productivity and other wellbore conditions unless such practices are not technically or economically feasible. Operators will also be required to "employ practices for control of fugitive dust caused by their operations."

Series 900, E&P Waste Management. This series addresses the management of exploration and production (“E&P”) waste, including procedures for pit management, reporting requirements, spill/release prevention, response and reporting, management of centralized E&P waste management facilities (including rules for groundwater monitoring), and site investigation, remediation and closure. Table 910-1, included in this section, contains specific allowable concentrations and levels of contaminants for soils and ground water. Please refer to the Rules in this section for more specific information.

Series 1000, Reclamation Regulations. This series requires that the surface of the land “be restored as nearly as practicable to its condition at the commencement of the drilling operations.” The regulations in this section concerning site preparation and stabilization, interim reclamation, and final reclamation are not to be enforced by the Commission if the operator has entered into an agreement with the surface owner regarding topsoil protection and reclamation of the land and has convinced the Director or the Commission that compliance with these Rules is “not necessary to protect the public health, safety and welfare, including prevention of significant environmental impacts and adverse impacts to wildlife resources....” Some of the prevention and reclamation activities included in this section are: fencing, soil removal and segregation, minimization of surface disturbance, use of access roads, stormwater management, interim reclamation, pit closures, restoration and revegetation, and weed control. Of particular note, Rule 1002 now requires "Best Management Practices" based on site specific conditions to control stormwater runoff and minimize erosion. Please refer to...
the Rules in this section for more detailed information regarding reclamation activities required by the Commission.

**Series 1100, Pipeline Regulations.** This series concerns the regulation of pipelines, including materials, design, cover, excavation of trenches, maintenance, repair, marking and emergency response.

**Series 1200, Protection of Wildlife Resources.** New. Added in 2008, the Rules in this series describe the Commission’s process for consulting with the Colorado Division of Wildlife, attempt to avoid adverse impacts on wildlife, minimize and mitigate adverse impacts that cannot be avoided, and are intended to consider the “cost-effectiveness and technical feasibility of measures for the minimization of surface disturbance and fragmentation of wildlife habitat.” Required measures include mosquito control to prevent the spread of West Nile Virus to wildlife, the installation of bear proof dumpsters, and disinfection of equipment used in other water bodies and wetlands in the past 30 days.

  - **Rule 1202. Identification of wildlife species.** This Rule requires operators to survey, map and report the occurrence of all wildlife species identified by the Commission as being within the vicinity of the proposed oil and gas location, including surveys of lands within specified radii for particular threatened or endangered species and wetlands.

  - **Rule 1203. Transportation planning.** Operators are required to plan transportation networks to minimize the number of oil and gas roads in order to minimize impacts on wildlife and are encouraged to use common roads and access points whenever possible.

  - **Rule 1208, Timing limitation areas**, restricts oil and gas activities in certain locations at certain times for periods up to three months in order to protect certain species in the state. Please consult the Rule for detailed information.

  - **Rule 1209, Restricted surface occupancy areas**, restricts oil and gas activities within certain distances of certain identified habitats in order to protect various species within the state. Please consult the Rule for detailed information.

**Federal Statutes and Regulations Governing Oil and Gas Exploration and Development**

Because local regulations may be preempted or affected by federal as well as state laws, it is important to be aware of the major federal acts that regulate the oil and gas industry. This section describes briefly four major pieces of federal legislation of which local governments should be aware: the Clean Air Act, the Clean Water Act, the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”), and the Oil Pollution Act of 1990.
Air Pollution Prevention and Control (the “Clean Air Act”), 42 U.S.C. §§ 7401 to 7671q.

The Environmental Protection Agency is charged with the administration of the Clean Air Act, which closely regulates emissions from oil and gas facilities. The Clean Air Act regulates pollutants emitted into the air by both stationary and mobile sources. Emissions are categorized by type, volume, whether they are in attainment or non-attainment areas and whether they are near populated areas or wilderness areas. The four types of stationary sources are: (i) major stationary sources, (ii) minor stationary sources, (iii) major sources of hazardous air pollutants (“HAPs”), and (iv) area sources.26

While the Clean Air Act aggregates sources of HAPs “if they are located within a contiguous area and under common control” for determining status as a major source, oil and gas wells and pipeline facilities (with its associated equipment) are specifically exempted from such aggregation.

However, the EPA Administrator may establish an area source category for oil and gas production wells located in any metropolitan statistical area or consolidated metropolitan statistical area with a population in excess of 1 million if the Administrator determines that emissions of HAPs from such wells present more than a negligible risk of adverse effects to public health. CAA § 112(n)(4)(B).

The EPA sets the National Ambient Air Quality Standards (NAAQS), but states with approved State Implementation Plans (“SIPs”) are permitted to establish procedures to attain and maintain the standards. Colorado has an approved SIP. See 40 C.F.R. §52.320 for the state regulations that constitute Colorado’s SIP. If it appears the air quality standard will be exceeded, the state must impose additional regulations on existing sources and new or modified sources can be required to apply for state construction permits in which the application must explain how the emissions from the new source will not exceed allowable limits. In ozone non-attainment areas, emissions from new sources may be offset by reducing emissions from existing sources.

Problems with non-attainment for ozone standards along Colorado’s Front Range led the state to enter into an Early Action Compact (“EAC”) with the EPA in December

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26 **Major stationary sources**, are as those which emit or have the potential to emit 100 tons or more per year of “criteria” pollutants (sulfur dioxide (“SOX”), particulate matter, carbon monoxide, ozone, nitrogen dioxide (“NOX”) and lead. [NOTE: These six pollutants are the common air pollutants monitored by the EPA for National Ambient Air Quality Standards];

**Minor stationary sources** are those that emit under 100 tons per year of the criteria pollutants;

**Major sources of hazardous air pollutants** are those stationary sources that emit or have the potential to emit considering controls, in the aggregate, 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs. HAPs are listed in §112 of the Act and are those pollutants which present, or may present, through inhalation or other routes of exposure, a threat of adverse human health effects or adverse environmental effects.

**Area sources** are any stationary source of HAPs that are not a major source.
2002. The EAC permits deferral of a non-attainment status and its attendant stricter regulations while the state works to develop a plan to reduce these emissions. Parts of Weld and Larimer Counties are included in the EAC. The EAC includes increased regulation of oil and gas exploration and production facilities. These facilities are now allowed to emit just 25% of the pollutants that would emit from an uncontrolled atmospheric storage tank during the summer ozone season.

Section 169A of the Clean Air Act addresses impairment of visibility. This section is of particular importance to those areas in the state that may affect certain protected national parks and wilderness areas. Section 169B addresses visibility issues.

The Air Pollution Control Division of the Colorado Department of Public Health and Environment administers air permits in Colorado pursuant to Title V of the Clean Air Act. Major stationary sources and major sources of hazardous air pollutants are required to obtain Title V permits, which practically means that they are generally only required at larger oil and gas facilities. Title V permits contain monitoring, record keeping and reporting requirements.

Section 116 of the Clean Air Act reserves to the states the right to adopt more stringent standards than those found in the Act. State statutes, which follow the federal regulatory scheme, are located in the Colorado Revised Statutes at Title 25, Article 7. State regulations concerning air pollution are found at 5 C.C.R. §§ 1001 -1 through -23.

Clean Water Act, 33 U.S.C. §§ 1251 to 1387

The Clean Water Act, which is part of the Federal Water Pollution Control Act, regulates the discharge of pollutants into the waters of the United States, further defined as navigable waters (interstate waters, intrastate waters used in commerce, their tributaries and adjacent wetlands). The Clean Water Act includes provisions that regulate:

- The discharge of pollutants from point sources and stormwater (Section 402);
- The discharge of dredged and fill material into the waters of the United States (Section 404 Dredge and Fill Permits issued by the U.S. Army Corps of Engineers)

The Oil Pollution Prevention regulation was created under the authority of the Clean Water Act in 2002. The rule addresses requirements for Spill Prevention Control and Countermeasure Plans (“SPCC”) and is found in title 40 of the Code of Federal Regulations, Part 112. The SPCC rule applies to owners or operators of facilities that drill, produce, gather, store, use, process, refine, transfer, distribute, or consume oil and oil products and which, due to their location, could reasonably be expected to have a discharge of oil in quantities that could prove harmful to the waters of the United States.

The rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines and requires specific facilities prepare, amend, and implement SPCC Plans. The Plans must include: (i) discharge prevention measures; (ii) discharge or drainage controls such as secondary containment around containers and other structures; (iii) countermeasures for discharge
discovery, response and cleanup; and (iv) methods of disposal of recovered materials. The general requirements for the plan are found at 40 C.R.S. § 112.7 and measures that apply to onshore facilities (excluding production facilities) are located at § 112.8.

**Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), 42 U.S.C. §§ 9601 to 9675**

The Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”) applies to releases or threatened releases of “hazardous substances” as defined by CERCLA and requires that releases of these substances be reported if they exceed the reportable quantity.

Importantly, CERCLA includes a provision that excludes petroleum products from its coverage. The “petroleum exclusion,” as it is known, excludes “petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under [the definition of hazardous substance].” Significantly, the statute specifically states that “the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel,” and therefore excluded from coverage. 42 U.S.C. § 9601(14)(2006).

Also included within CERCLA’s petroleum exclusion are those petroleum products that contain hazardous substances, so long as such hazardous substances are an integral part of the petroleum product. For example, benzene, toluene, and xylene, which are listed as hazardous substances under CERCLA, are also commonly found in gasoline. But because gasoline is included in the exclusion, so are these substances. There are limits, however. Hazardous substances will be excluded to the extent normally found in petroleum products. Thus, the petroleum exclusion will not extend to substances found in used oil that are not normally found in petroleum products or to such substances if they are found at levels exceeding those normally found in petroleum.

**Oil Pollution Act of 1990, 33 U.S.C. §§ 2701**

Another federal law of which local governments should be aware in order to avoid possible operational preemption of their local regulations is the Oil Pollution Act of 1990 (the “OPA”). The OPA is primarily designed to outline the parameters of lawsuits for discharges of oil into the navigable waters or adjoining shorelines of the United States. (Navigable waters, recalling from the discussion of the Clean Water Act, above, include interstate waters, intrastate waters used in commerce, their tributaries and adjacent wetlands.) The OPA provides that those parties responsible for such discharge will be responsible for removal costs and damages as specified in Section 2702 (b) of the OPA. It also provides for uses to which the Oil Spill Liability Trust Fund may be put. The Act’s definition of oil includes “petroleum, fuel, oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil, but does not include any substance which is specifically listed or designated as a hazardous substance under [CERCLA] and which is subject to the provisions of that Act.” 33 U.S.C. § 2701(23).
Preemption is a doctrine adopted by the United State Supreme Court that holds that certain matters are of such a national character that federal laws preempt - or take precedence over – conflicting state laws. Similarly, state law can preempt local regulations if the matter being regulated is a matter of exclusive, or at least mixed, state interest. As expressed by the Colorado Supreme Court, “the purpose of the preemption doctrine is to establish a priority between potentially conflicting laws enacted by various levels of government.” Bd. of County Comm’rs v. Bowen/Edwards Assoc., Inc., 830 P.2d 1045, 1055 (Colo. 1992).

In determining the priority between conflicting state and local laws, regulated matters fall into three primary categories: (i) matters of state interest; (ii) matters of local interest; and (iii) matters of mixed state and local concern. Colorado case law states that when a matter is primarily of state interest, the state legislature may legislate in area, but local governments may not unless authorized to do so by state statute. When the matter is primarily of local interest, such as land use regulation, the local interest will generally control. When the matter is a question of mixed interest, that is, both state and local, the court will examine the issue on a case by case basis to determine which law, state or local, should control. City of Northglenn v. Ibarra, 62 P.3d 151 (Colo. 2003).

A three-part analysis is applied when the matter is of both state and local interest27:

1. Does the express language of the state statute indicate that the state intended that only it should legislate in this area?

2. Does the state statute impliedly evince a legislative intent to occupy a given field completely by reason of a dominant state interest?

3. Does the operational effect of the local ordinance conflict with the application of the state statute?

A “yes” answer to any of these questions means that the local regulations are preempted and the state statute will control.

There are three types of preemption:

- **Express**, in which a federal or state law states in clear and unequivocal terms the legislature’s intent that this law shall take precedence over laws and regulations adopted by lower legislative bodies (i.e., state statutes in the case of federal laws or local ordinances in the case of a state statute);

- **Implied**, in which the higher legislature’s interest in a matter is

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“so patently dominant over a lower legislature’s interest in the matter or that their respective interests are so irreconcilably in conflict, as to eliminate by necessary implication any prospect for a harmonious application of both regulatory schemes” (Bd of County Comm’rs v. Bowen/Edwards Associates, Inc., 830 P.2d 1045, 1058 (Colo. 1992); and

- Operational, in which the application of the statutes or regulations of the lower legislative body (local or state) materially impedes or destroys the interest of the higher legislative body (state or federal).

**SUMMARY**

Since the Colorado Supreme Court decisions in *Bowen/Edwards* and *Voss* in 1992, it has been clear that state law does not expressly or impliedly prevent local governments from regulating oil and gas development or operations within their jurisdictions. However, local regulations will be preempted if they conflict with state statutes operationally. The test, again, is whether the implementation of a law protecting a local interest materially impedes or destroys the state interest. Colorado case law also states that home rule municipalities, while granted additional local control by Article XX of the Colorado Constitution, may not totally prohibit oil and gas drilling within their boundaries. Finally, operational preemption will likely be found where local regulations impose technical conditions under circumstances where no such conditions are imposed under the state statutory or regulatory scheme or the requirements imposed are contrary to those required by state law or regulation. The following six appellate court cases illustrate these principles (see next page):
In this case, Bowen/Edwards Associates, a company engaged in oil and gas exploration and development in La Plata County, challenged the county’s land use regulations that pertained to oil and gas development, arguing that the Oil and Gas Conservation Act (the “Act”) completely preempted the County’s land use authority over all aspects of oil and gas development. The Colorado Supreme Court reviewed the Act and found no clear and unequivocal statement of legislative intent to prohibit a county from exercising its traditional land-use authority over areas in which oil and gas development was or might take place (thus, no express preemption). Nor did the Court find that the state’s interest in oil and gas activities was so patently dominant over a county’s interest in land use control or that their respective interests were so “irreconcilably in conflict, as to eliminate by necessary implication any prospect for a harmonious application of both regulatory schemes.” (No implied preemption.) However, the court left the door open for possible operational preemption, stating:

[s]tate preemption by reason of operational conflict can arise where the effectuation of a local interest would materially impeded or destroy the state interest. …Under such circumstances, local regulations may be partially or totally preempted to the extent that they conflict with the achievement of the state interest.

With respect to whether the County could impose different standards than were found in the Act, the Court explained:

We hasten to add that there may be instances where the county's regulatory scheme conflicts in operation with the state statutory or regulatory scheme. For example, the operational effect of the county regulations might be to impose technical conditions on the drilling or pumping of wells under circumstances where no such conditions are imposed under the state statutory or regulatory scheme, or to impose safety regulations or land restoration requirements contrary to those required by state law or regulation. To the extent that such operational conflicts might exist, the county regulations must yield to the state interest. Any determination that there exists an operational conflict between the county regulations and the state statute or regulatory scheme, however, must be resolved on an ad-hoc basis under a fully developed evidentiary record.

The Court reversed the court of appeals decision, which had found that the Act totally preempted the County’s land-use authority over all aspects of oil and gas development.
development. Because the record before the district court had not been developed sufficiently to determine whether an operational conflict might exist, the case was returned to the district court for further proceedings.

**Voss v. Lundvall Brothers, Inc., 830 P.2d 1061 (Colo. 1992).**

In Voss, decided the same day as *Bowen/Edwards*, the Colorado Supreme Court held that the City of Greeley’s attempt to completely ban oil and gas development within the City was preempted by the state’s interest in “efficient development and production of oil and gas in a manner preventative of waste and protective of the correlative rights of common-source owners and producers to a fair share of production profits.” The court, reiterating its *Bowen/Edwards* preemption analysis, found that while the Act does not totally preempt a home rule city’s exercise of land use authority over oil and gas development and operations, the statewide interest in the efficient development and production of oil and gas resources prevents a home-rule city from totally banning the drilling of oil, gas, or hydrocarbon wells within the city.

The court also held that if the city, instead of instituting a complete ban on drilling within the city, enacted land use regulations concerning oil and gas development and operations and those regulations did not frustrate, but rather could be harmonized with the state’s interest, then the city’s regulations should be given effect.


In 1994, Frederick enacted an ordinance prohibiting oil and gas wells within the town unless the operator (“NARCO”) first applied for and received a special use permit. The ordinance included specific provisions for well location and setbacks, noise mitigation, visual impact and aesthetics regulation. The ordinance imposed a fine for its violation and authorized the town attorney to seek an injunction against or removal of any unlawful facility.

The Court of Appeals, following the *Bowen/Edwards* and *Voss* decisions, found no express or implied preemption of the local ordinance, and agreed that local governments could regulate oil and gas development and operations within their jurisdictions, so long as no operational conflict existed between the Act and the local regulations.

NARCO argued that *Bowen/Edwards* should be interpreted as saying that the state’s interest "requires uniform regulation of drilling" and similar activities. The Court of Appeals disagreed and found rather that it was only the technical aspects of drilling that
required uniform regulation: “The phrase ‘technical aspects’ suggests that there are ‘nontechnical aspects’ that may yet be subject to local regulation.”

Affirming the decision of the trial court, the Court found:

- The ordinance provision imposing setback requirements for the location of wells conflicted with COGCC Rule 603(a) and (b), which requires lesser setbacks in non-high-density areas;
- The noise abatement provisions conflicted with COGCC Rule 802 in that they permitted the Town to require noise abatement measures beyond those required by the state;
- The ordinance regulating the visual impact of oil and gas operations included mandatory requirements that conflicted with the detailed requirements in COGCC Rules 318, 803, 804, 1002 and 1003.
- To the extent that the ordinance incorporated the COGCC’s penalty schedule, then gave the Town the authority to assess penalties in addition to those provided for the COGCC, the ordinance conflicted with the COGCC’s rules because the statute [C.R.S. § 34-60-106(15)] “demonstrates that the General Assembly did not contemplate that local governments could assess fees for violations of COGCC rules.”

Each of these conflicting provisions was found to be preempted based upon operational conflict. Note: the Town did not raise at the district court level that it had independent police power to adopt the ordinance regulating these activities. Because this issue was not raised in the district court, the Court of Appeals failed to address Town's argument.

This case involved a challenge by the Boards of County Commissioners of La Plata, Archuleta, Las Animas, Routt, and San Miguel counties to an amendment to COGCC Rule 303(a). The amendment stated that:

"The permit-to-drill shall be binding with respect to any conflicting local governmental permit or land use approval process."

The Boards argued that the COGCC improperly expanded the operational conflict standard articulated in Bowen/Edwards by providing that Rule 303(a) prevailed whenever there is any conflicting local governmental permit or land use approval process. The court agreed. While the rulemaking record indicated that it was the COGCC’s intent to “reduce uncertainty arising from local governments' enactment of oil and gas regulations in the exercise of their land use authority” by informing operators of the status of existing case law, the amendment contradicted current case law and therefore exceeded COGCC’s

**Board of County Commissioners of La Plata County v. COGCC, 81 P.3d 1119 (Colo. App. 2003).**
statutory authority. The Court, at 1125, stated:

The words "any conflicting" in the rule have much broader meaning than "operationally conflicting," as discussed in Bowen/Edwards and Voss v. Lundvall Bros., supra. The word "any" means "all." See, e.g., Austin v. Weld County, 702 P.2d 293 (Colo. App. 1985). Thus, on its face amended Rule 303(a) would preempt local government actions beyond those that materially impede or destroy the state interest and would give oil and gas operators license to disregard local land use regulation. This result erodes the delicate balance between local interests and state interests set forth by Bowen/Edwards. Therefore, because the amended rule conflicts with Bowen/Edwards, we must set it aside.

Because the amended rule expanded the operational conflict standard it was held to be invalid. This holding was extended in the Gunnison County case, described below.

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GSS Properties, LLC ("GSS") purchased fifty-five acres located above the Town of Carbondale's ("Town") Nettle Creek water plant. GSS then began construction and earthmoving activities and began using herbicides and other chemicals for weed eradication. The Town sued GSS alleging that GSS had allowed dirt to spill into the creek that eventually caused ruptures of the Town's water main in violation of the Town's watershed protection ordinance. GSS asserted that the Town's ordinance was preempted by state law. The district court precluded this defense because GSS did not assert it in its initial answer.

The Court of Appeals addressed C.R.S. § 31-15-707(1)(b)\(^{28}\) in considering the scope of control of watershed protection ordinances, in relation to other state laws. While holding that the statute unquestionably gives municipalities water pollution authority, the court remanded the case for a determination whether an operational conflict existed between the ordinance and several state statutes, including the Colorado Water Quality Control Act, the Colorado Drinking Water Quality Act, the Pesticide Applicators’ Act, the preemption provisions of C.R.S. Title 35, Agriculture, and statutes concerning the nuisance liability of agricultural operations. Ultimately, the Supreme

\(^{28}\) Previously discussed in the State Statutes and Regulations section.
Court sided with the trial court and ruled that because GSS failed to properly raise the preemption defense, it waived its right to assert it at a later time. The Supreme Court denied certiorari, and thus did not address whether the watershed protection ordinance improperly conflicted with the listed statutes. While of interest, the case does not shed much light on the degree to which watershed protection ordinances will be held to operationally conflict with state law on oil and gas operations, as those facts were not present in the case.

**Board of County Commissioners of Gunnison County v. BDS International, LLC, 159 P.3d 773 (Colo. App. 2006).**

In *BDS International*, Gunnison County filed an action seeking injunctive relief to prevent BDS from maintaining or drilling wells on federal property within Gunnison County and declaratory relief seeking a court order requiring that BDS comply with the County’s Temporary Regulations for Oil and Gas Operations. The company argued that, under a same-subject analysis, “if a state statute or regulation concerns a particular aspect of oil and gas operations, any county regulations in that area are automatically preempted under operational conflicts preemption.” At page 779 of the opinion, the court found that *Bowen/Edwards* and *Town of Frederick* do not support that conclusion, stating:

> As noted, a statute will preempt a regulation where the effectuation of a local interest would materially impede or destroy the state interest. *Bowen/Edwards,* *supra*. Therefore, a county may not impose technical conditions on the drilling or pumping of wells under circumstances where no such conditions are imposed by state law or regulation. *Bowen/Edwards,* *supra*. In addition, a county may not impose fines that are inconsistent with those imposed by the COGCC. *Town of Frederick,* *supra*.

Id. This portion of the opinion is important in making clear that simply because the state has a regulation on a given subject, that does not mean that the subject is therefore “off limits” to local regulation. In fact, the court held just the opposite in saying that a list of issues (water quality, soil erosion, wildlife, vegetation, livestock, cultural and historic resources, geologic hazards, wildfire protection, and recreation impacts) were not preempted on their face even though the COGCC had regulations in the same area; instead remanding for an evidentiary hearing. However, the court did hold that several County regulations were facially invalid because they operationally conflicted with state statute. This preempted regulations included provisions concerning impact mitigation costs29, financial

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29 The County’s regulations at Section 1-107L read as follows: “The Operator shall bear the proportionate cost of mitigating the impacts caused by the Oil and Gas Operation.”
requirements and access to records. The Court remanded the case because facts were needed to determine whether other County regulations were operationally preempted.

In addition, the court rejected the argument that the County may not implement any regulations concerning oil and gas operations on federal lands.

Reviewing federal laws regulating the use and disposition of federal lands, the court found that these statutes do not expressly or impliedly preempt local regulation of federal lands. The court did not discuss whether the County's regulations were operationally preempted by federal laws since that issue was not raised.
Whether and to what extent local laws are applicable on federal lands is the subject of much case law. This section will briefly outline the unique issues affecting local regulation of oil and gas development on federal land. Please consult your legal counsel for more in depth analysis of federal preemption case law.

**GENERAL PRINCIPLES**


- Where Congress does not purport to override state power over public lands, and there is no cession, federal official lacks power to regulate contrary to state law. *Colorado v. Toll*, 268 U.S. 228 (1925).

- These general principles have been established in Colorado in *City & County of Denver v. Bergland*, 517 F.Supp. 155 (D.Colo. 1981), *aff'd in part, rev'd in part*, 695 F.2d 465 (10th Cir. 1982).

**FEDERAL PREEMPTION ANALYSIS**

As with state law, what Congressional action constitutes preemption of local rules is the primary issue. The key principles laid down with respect to this question are the following:

- When there is a direct conflict between state and federal legislation, federal legislation preempts under the Supremacy Clause of the United States Constitution. *Hagood, supra*.

[Note that a state regulation may be more stringent and yet not conflicting. Only when a right granted by the federal government is impossible (rather than more difficult) to exercise by reason of a state or local regulation would they be in conflict.] *Click, supra*. 
Federal legislation will also be deemed to preempt if such was the intent of Congress. This intent is evident when:

- Congress has specifically stated that it preempts local rules; or
- There is such a pervasive and comprehensive scheme of federal regulation that preemption follows in order to fulfill the federal statutory purpose: *Hagood, supra*; or
- If the nature of the subject matter is such that it dictates preemption, e.g. exclusivity is required to achieve national uniformity; *Click, supra*; or
- The state law stands as an obstacle to achieving stated objectives of Congress: *Click, supra*; *Jones v. Rath Packing Co.*, 430 U.S. 519, 97 (1977).

In making determinations as to whether a preemption has occurred under one of the foregoing principles, the following rules of interpretation will be applied:

- Federal incursions upon the historic police powers of the state are not to be found without good cause. *Ventura, supra*; *Rice v. Sante Fe Elevator Corp.*, 331 U.S. 218 (1947). "Where, as here, the field which Congress is said to have preempted has been traditionally occupied by the State (citing authorities)…'We start with the assumption that the historic police powers of the State were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress.'" *Jones, supra*.
- Local regulations should apply when they present no significant threat to any identifiable federal policy or interest; *Ventura; Texas Oil, supra*.
- The proper approach is to attempt to reconcile the State and Congressional statutory schemes. Conflicting laws should be preempted by Congressional acts only to the extent necessary to protect the goals of the federal legislation. *Merrill Lynch, Pierce, Fenner and Smith, Inc. v. Ware*, 414 U.S. 117 (1973).
- "In determining whether state regulation has been preempted by federal action, the intent to supersede the exercise by the State of its police power as to matters not covered by the federal legislation is not to be inferred from the mere fact that Congress has seen fit to occupy a limited field. In other words, such intent is not to be implied unless the act of Congress fairly interpreted is in actual conflict with the law of the State…. To hold otherwise would be to ignore the teaching of the Court's decisions which enjoin seeking out conflicts." *Huron Portland Cement Co. v. Detroit*, 362 U.S. 440 (1960).