

**AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF PITKIN COUNTY,  
COLORADO, AMENDING VARIOUS SECTIONS OF THE 2006 PITKIN COUNTY LAND USE  
CODE, TITLE 8 OF THE PITKIN COUNTY CODE AND THE PITKIN COUNTY LAND USE  
APPLICATION MANUAL WITH REGARD TO OIL AND GAS OPERATIONS**

**Ordinance No. \_\_\_\_-2010**

**RECITALS**

1. Pitkin County Community Development staff has initiated amendments to the Pitkin County Land Use Code to replace the current oil and gas regulations with new regulations that extend the County's authority to regulate oil and gas operations in order to protect the public health, safety and welfare, including the environment and wildlife resources, from the impacts resulting from oil and gas development.
2. The Pitkin County Planning and Zoning Commission considered the proposed code amendments at a regularly scheduled meeting on February 16, 2010, and recommended approval by a vote of 5-0.
3. The BOCC considered the proposed code amendments on first reading on March 10, 2010 and on second reading at a duly noticed public hearing on March 24, 2010.
4. The BOCC finds that the proposed code amendments are consistent with the applicable provisions of the Code, and are necessary to protect the public health, safety and welfare.

**NOW, THEREFORE, BE IT ORDAINED** by the BOCC that it hereby amends Title 8 of the Pitkin County Code, the Land Use Code, to amend various sections of the Code, as follows in Attachment A, and amends the Pitkin County Land Use Application Manual, as follows in Attachment B.

**INTRODUCED AND FIRST READ** on the 10<sup>th</sup> day of March, 2010.

**NOTICE OF PUBLIC HEARING** published in the Aspen Times Weekly on the \_\_\_\_ day of \_\_\_\_\_, 2010.

**APPROVED AND ADOPTED AFTER SECOND READING AT A PUBLIC HEARING** on the \_\_\_\_ day of \_\_\_\_\_, 2010.

**PUBLISHED AFTER ADOPTION** in the Aspen Times Weekly on the \_\_\_\_ day of \_\_\_\_\_, 2010.

**THIS ORDINANCE SHALL BECOME EFFECTIVE 30 DAYS AFTER PUBLICATION FOLLOWING FINAL ADOPTION BY THE BOARD OF COUNTY COMMISSIONERS.**

BOARD OF COUNTY COMMISSIONERS  
OF PITKIN COUNTY, COLORADO

ATTEST:

By \_\_\_\_\_  
George Newman, Chair

Date \_\_\_\_\_

\_\_\_\_\_  
Jeanette Jones, Clerk to the BOCC

APPROVED AS TO FORM:

APPROVED AS TO CONTENT:

\_\_\_\_\_  
John Ely, County Attorney

\_\_\_\_\_  
Cindy Houben,  
Community Development Director

## ATTACHMENT A

The following amendments are made to the Pitkin County Land Use Code:

**I. Sec. 2-20-100(a)(4)(b) is amended by deleting “oil and gas extraction or” from the second sentence and adding the following as new sentences at the end:**

If the application is for approval of an oil and gas operation, notice shall be provided to the following persons: (i) both the current surface owners and current subsurface owners of the parcel of land on which the oil and gas operation is proposed to be located; (ii) where the oil and gas operation is on private land, the current surface owners of those parcels of land adjacent to, and within 1,500 feet (1,500') of the parcel of land on which the oil and gas operation is proposed to be located; and (iii) where the oil and gas operation is on public land, the current surface owners of those parcels of land adjacent to, or within 1,500 feet (1,500') of the section on which the oil and gas operation is proposed to be located. Additionally, if any part of an existing subdivision is located within 1,500 feet (1,500') of the parcel (or section, in the case of public land) on which the oil and gas operation is proposed to be located, then notice shall also be provided to all of the current surface owners within such subdivision. Further, in the case of an application for approval of an oil and gas operation, the applicant shall provide written notice to all owners of water rights in any ditches or other water structures that may reasonably be expected to be impacted by the development; the list of water rights owners shall be obtained by contacting the local Water Commissioner for the Colorado Division of Water Resources. Also, operators shall provide notice to owners and/or residents of property likely to experience elevated levels of Volatile Organic Compounds (VOCs) or fugitive emissions as a result of the proposed development.

**II. The first paragraph of Sec. 2-20-130 is amended by adding the following sentence at the end of the existing paragraph:**

Where the application is for approval of an oil and gas operation, requirements for guarantees of performance shall be as specified in Sec. 4-30-20(h)(6).

**III. Sec. 2-40-20(c)(1) is amended by adding the following sentence at the end of the existing paragraph:**

***(1) COMMENCEMENT OF OPERATION***

Approved special review uses shall begin within three (3) years following the date of approval of the development permit, unless a longer period is specified, or the approval shall become null and void. Oil and gas operations shall be subject to the permit duration provisions in Sec. 4-30-20(h)(8)(b).

**IV. Sec. 2-40-20(e) is deleted in its entirety and the following language is substituted in its place:**

**e. Additional Special Review Procedures for Oil and Gas Operations**

**1. Conflicts**

In the event of a conflict between the provisions of this Sec. 2-40-20(e) and the provisions of Sec. 2-30-30(h), the provisions of this Sec. 2-40-20(e) shall govern.

## **2. State and Federal Law**

In addition to review under the Land Use Code, oil and gas operations shall be reviewed under applicable federal and state statutes and regulations, including but not limited to the Colorado Oil and Gas Conservation Commission (COGCC) regulations governing oil and gas operations. Pitkin County understands that, under federal and state law, there are areas in which it does not have a legal right to establish and enforce performance standards. In those cases, to require compliance with such state or federal performance standards shall not create a presumption that Pitkin County has the right to enforce state or federal statutes or regulations, or any County regulations which are expressly or impliedly preempted by federal or state law.

## **3. Adjacent Jurisdictions' Requirements**

Master plans and regulations of municipalities or other agencies in the County, as well as master plans and regulations of adjacent counties shall be considered in the review process, if and to the extent applicable to the proposed oil and gas operations.

## **4. Other County Permits Also Required for Oil and Gas Operations**

An Access Driveway Development Permit must be obtained prior to development on any parcel; access shall be compliant with the requirements of the Pitkin County Asset Management Plan. A Floodplain Development Permit, Earthmoving Permit, Building Permit, Onsite Wastewater Treatment System Construction Permit, Right-of-Way Work Permit, and Revocable Right-of-Way Work Permit shall also be required in connection with oil and gas operations, if and as applicable. In the event of any conflict between the regulations governing such permits, or the conditions of approval established for such permits and this Sec. 2-40-20(e) or Sec. 4-30-20(h), the provisions of the Land Use Code shall control.

## **5. Site Visit**

The Community Development Department shall conduct a public site visit with all interested parties to evaluate locations, compliance with the Land Use Code and mitigation that may be required for development pursuant to the Land Use Code. When possible this site visit will be coordinated with any site visits required by COGCC regulations.

## **6. Severability**

If any section, clause, provision or portion of these regulations should be found unconstitutional or otherwise invalid by a court of competent jurisdiction, the remainder of this regulation shall not be affected thereby and is hereby declared to be necessary for the public health, safety and welfare.

## **7. Definitions**

Certain terms that are used in the Land Use Code related to oil and gas operations are defined in Chapter 11 of the Land Use Code. Where a term used in these provisions is not defined, the definitions in the COGCC regulations or in common usage within the industry shall apply.

**V. Sec. 4-20, Table 4-1: Permitted Uses is amended by inserting an “S” [Special Review Use] under each Zone District across the column for “Oil and Gas Extraction” under the Agricultural & Resource section of the table.**

**VI. Sec. 4-30-20(h) is deleted in its entirety and the following language is substituted in its place:**

## **h. Oil and Gas Operations**

### **1. Purpose**

a. General. The purpose of this Sec. 4-30-20(h) is to establish regulations that provide reasonable limitations on and safeguards for the exploration, production and transport of oil and gas resources in Pitkin County. The goal of these regulations is to ensure that exploration and production of oil and gas resources occurs in a manner that conserves other natural resources, that is compatible with existing and proposed land uses, and that prevents, or adequately mitigates for current and future adverse impacts to public health, safety, welfare, and the environment.

b. Surface and Mineral Estates. It is recognized that, under state law, surface and mineral estates are separate and distinct interests in land and that one may be severed from the other. Owners of subsurface mineral interests have certain legal rights and privileges, including the right to use that part of a surface estate reasonably required to extract and develop their subsurface mineral interests, subject to compliance with the provisions of these regulations and other applicable statutory and regulatory requirements. Similarly, owners of the surface estate have certain legal rights and privileges, including the right to have the mineral estate developed in a reasonable manner and to have adverse land use impacts upon their property associated with the development of the mineral estate mitigated through compliance with these regulations and other applicable statutory and regulatory requirements.

c. Compliance. If proposed oil and gas operations cannot be operated in compliance with the regulations established in this Land Use Code, a development permit for such oil and gas operations may be denied.

### **2. Applicability**

a. Jurisdiction. These regulations apply to all oil and gas operations on public and private lands within unincorporated Pitkin County, with the exception of lands where the County’s jurisdiction is preempted by federal or state law.

b. Land Use Approval Required; Exemptions. No person shall engage in, cause, allow, or conduct any oil and gas operations prior to obtaining a development permit unless the oil and gas operations fall within an exempt development activity specified in Sec. 7-10-30 or one of the following exemptions:

i. Mapping activities that do not result in any surface disturbance.

ii. Oil and gas operations and maintenance of oil and gas operations that are legal nonconforming uses under Chapter 9 of this Land Use Code. Any expansion of nonconforming oil and gas operations shall comply with Chapter 9.

iii. Coal mine methane venting from a permitted coal mine, that does not produce or distribute methane off-site, and that is an integral and essential component of the existing coal mine.

### **3. No Duplication**

When possible, the County will review development permit applications concurrently with other required state or federal agency permitting processes. When federal and/or state analyses and/or permit approvals are necessary, however, final action by Pitkin County may be delayed until an applicant can demonstrate that all required state and federal analyses have been completed and approvals have been issued, and the County has had an opportunity to review the analyses and determinations of the other entities.

### **4. Oil and Gas Operational Considerations and Standards**

a. Applicable Standards and Criteria. An oil and gas operation shall comply with the standards and criteria specified below unless a Technical Infeasibility Waiver is granted under Sec. 4-30-20(h)(5).

b. General Procedures. As a general matter, the County requires appropriate use of directional drilling, the placement of multiple wells on a single pad, the use of closed loop (“pitless”) drilling systems, the use of non-toxic or “green” drilling and fracturing fluids and other techniques, including current and available best management practices designed to protect the integrity of the surface estate, surface and subsurface water resources, air resources, as well as public health, safety, and welfare.

c. Siting Oil and Gas Operations.

i. General. Oil and gas operations (including well pads and pipelines) shall occupy and disturb the least surface area feasible to ensure safe and effective operations. Reasonable accommodation shall be made to surface owners and operations shall be sited to minimize intrusion upon and damage to the surface per C.R.S. § 34-60-127. Alternative locations shall be considered when siting facilities. Oil and gas operations shall, at a minimum, lie within a location that complies with COGCC regulations, including but not limited to COGCC Rules 603 and 1002, and shall otherwise be sited in accordance with the development standards of Chapter 7 of this Land Use Code. Spacing of well pads shall comply with COGCC requirements.

a. As a general matter, oil and gas operations shall be sited to avoid and/or minimize: (A) the physical and visual impact to existing buildings, access roads and driveways, County-approved activity envelopes, and ongoing agricultural and grazing operations; (B) the physical and visual impact to recreational activities, including but not limited to hiking, biking, hunting, skiing and fishing; (C) ongoing impacts to wildlife and wildlife habitat generally (including migration corridors, wetlands and riparian areas); and (D) noise, odor, dust and lighting impacts on the surrounding area.

b. Oil and gas facilities shall be sited and designed to utilize natural screening to the extent possible. Natural screening includes, but is not limited to, the use of existing vegetation as a background, and the construction of an oil and gas facility near mature

stands of vegetation or behind ridges and natural rock formations. Oil and gas facilities shall be sited: (1) at the base of slopes, if possible, to provide a background of topography and/or natural cover, (2) to avoid crossing hills and ridges or silhouetting, (3) in a manner that minimizes the amount of cut and fill needed to construct the facility(ies), and (4) away from prominent natural features, such as distinctive rock and land forms, vegetative patterns, river crossings and other landmarks.

ii. Existing Infrastructure. Oil and gas facilities shall be constructed using, to the extent feasible, existing infrastructure. This includes, but is not limited to, the use of existing roads, pipeline routes, and well pads.

iii. Setbacks. Oil and gas operations shall, at a minimum, be sited in a manner that complies with all setbacks and buffer zones established under COGCC regulations. Oil and gas operations shall further comply with all zoning and site-specific setback requirements of this Land Use Code, to the extent such requirements establish greater distances than those established by the COGCC.

d. Mitigation of Operational Impacts.

i. Noise Levels; Noise Abatement.

a. All construction, maintenance, and operation of oil and gas facilities shall be conducted in such a manner so as to minimize noise to the maximum extent practicable. At a minimum, oil and gas operations shall comply with the noise level and abatement provisions of COGCC Rule 802 and shall further comply with all of the requirements specified below.

b. Oil and gas facilities with engines, motors and other mechanized equipment generating sound which are located within 400 feet of a dwelling or other building used by persons or animals at any time, a regularly-used recreational area, or identified wildlife habitat, shall be placed behind a maintained, acoustically insulated housing or cover to reduce sound levels to the maximum extent practicable.

c. Exhaust from all engines, motors, coolers and other mechanized equipment shall be vented away from all dwellings and other buildings used by persons or animals at any time.

d. Specific site characteristics shall be considered in determining noise mitigation requirements for all aspects of oil and gas operations, including but not limited to the nature and proximity of existing and planned future development, prevailing weather patterns, including wind direction, topography, and vegetative cover on the site and adjacent parcels. On a site-specific basis, one or more of the following additional requirements may be imposed as a condition of approval for a development permit: (1) acoustic insulation of mechanized equipment greater than 400 feet from the buildings and areas described in subsection (b) above, (2) vegetative screening, (3) a solid wall, fence or berm of acoustically insulated material surrounding all or part of an oil and gas operation, (4) an acoustically insulated oil and gas facility, and/or (5) restrictions on hours of operation of certain activities.

ii. Vibration. All stationary equipment associated with oil and gas operations shall be anchored on isolation pads so as to minimize transmission of vibration

through the ground.

iii. Visual Impacts: In addition to the following, the requirements of Sec. 7-20-120 of this Land Use Code shall apply.

a. To the maximum extent practicable, structures and equipment of the minimum size necessary to satisfy functional requirements shall be used for oil and gas operations, including low profile pumps and other equipment to mitigate visual impacts.

b. When clearing trees and other vegetation for construction of oil and gas facilities, the edges of vegetation shall be feathered and thinned. Damage to existing trees and other vegetation shall be minimized to the maximum extent practicable.

c. Earth adjacent to water crossings shall be replaced at slopes less than the natural angle of repose for the soil type of the site.

d. To the maximum extent practicable, access drives/roads shall be aligned to follow existing grades and minimize cuts and fills.

e. Oil and gas facilities shall be painted: (1) in uniform, non-contrasting, non-reflective color tones, similar to the Munsell® Soil Color coding system, and (2) in a color matched to land, not sky, slightly darker than the adjacent landscape.

f. Pad dimensions for an oil and gas facility shall be the minimum size necessary to provide a safe work area and minimize surface disturbance. The pad shall be oriented in a manner to reduce the visual impact from a view corridor or road and ideally, the pad shall be sited perpendicular to any road, not parallel.

g. Upon completion of the well or other work associated with drilling, the operator or owner shall reclaim the disturbed area (except areas reasonably needed for production operations or subsequent drilling operations to be commenced within twelve months, which shall be stabilized and maintained in a manner that will minimize fugitive dust and erosion) with native grasses or other vegetation which the County, in consultation with any third-party surface owner, may agree to. The Operator shall ensure that any noxious weeds in the re-vegetation area shall be mitigated prior to re-seeding. The requirements for interim re-vegetation shall not apply to main access roads and the immediate areas surrounding the above-ground oil and gas facilities, which are necessary for safe operations, and which are to be graveled. Interim reclamation shall be conducted within the time periods established by COGCC Rule 1003.

h. During oil and gas operations, one or more of the following landscape practices shall be applied as required by the County, on a site specific basis: (1) establishment of ground cover, shrubs and trees (landscaping shall be appropriate to the surrounding landscape and vegetation and pursuant to a landscape plan approved by the County, in consultation with any third-party surface owner), (2) shaping cuts and fills to appear as natural forms, and (3) cutting rock areas to create irregular forms.

i. Exterior lighting, when required, shall meet the requirements of Sec. 7-20-140 of this Land Use Code. The minimum lighting necessary to effectively carry out oil and gas operations safely shall be used.

j. All equipment used for construction, drilling, re-drilling, well completion and re-completion and maintenance of an oil and gas facility shall be removed from the site within thirty (30) days of completion of the work for which the equipment is used, unless otherwise agreed to by any third-party surface owner and approved by Pitkin County. Permanent storage of equipment on well pad sites shall not be allowed, unless otherwise agreed to by any third-party surface owner and approved by Pitkin County as otherwise in conformance with this Land Use Code.

k. To the maximum extent practicable, all utilities must be underground, unless site specific factors make underground location of any utility inadvisable.

e. Safety and Security.

i. General Requirements. COGCC general drilling rules (COGCC Rule 317), requirements for pipelines (COGCC 1100 Series Rules), rules for abandonment of wells and pipelines (COGCC Rules 319 and 1103), and COGCC 600 Series safety regulations shall be adhered to. Safety practices generally accepted by the oil and gas industry shall be used at all times during drilling and production to minimize the danger to the general public.

ii. Fencing Required. In addition to the requirements of COGCC Rule 603(e)(7), security fencing for oil and gas operations shall be required in the following locations:

(a) Where there are four or more dwellings within one thousand (1,000) feet of any oil and gas facility.

(b) Where there is any other building used by persons for commercial occupancy or recreation within one-thousand (1,000) feet of any oil and gas facility.

(c) Where there is any other recreational facility or area within one-thousand (1,000) feet of any oil and gas facility.

Where an approved visual mitigation plan specifies alternative security fencing, the alternative fencing scheme shall apply.

iii. Fire Safety. In addition to the requirements of the COGCC 600 Series Rules concerning the removal of surface trash, the control of fire hazards and fire prevention and protection, the requirements of Sec. 7-20-60 of this Land Use Code shall apply. No burning of trash shall occur on the site without the prior written approval of the applicable Fire District.

iv. Emergency Preparedness. An operator shall comply with Tier-II reporting requirements and promptly respond to all requests for clarification of data from the County's Director of Emergency Management. An operator shall also submit Material Safety Data Sheets (MSDS) to "the appropriate local emergency planning committee" and "fire department having jurisdiction over the facility" as per the Emergency Preparedness and Community Right-to-Know Act (EPCRA), U.S.C. 42 §11021.

v. Signs. An operator shall, at a minimum, comply with the requirements of COGCC Rules 210 and 1102(c) for placement, maintenance and removal of directional and other signage. Operators shall replace damaged or vandalized signs within ten (10) days after

any written notice from the County, or immediately, when notified that public health and safety is in jeopardy.

vi. Cost Reimbursement. An oil and gas operation located outside of the boundaries of a Fire Protection District shall be required to reimburse each Fire District for all direct and indirect costs of responding to and fighting any fire or other emergency situation requiring the presence of such Fire District.

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f. Environmental Quality Standards.

i. General. For protection of the public health, safety and welfare, oil and gas operations shall not create man-made or man-induced contamination or other significant degradation of the physical, chemical, or radiological integrity of the air, water, soil or any biological resource.

ii. Water Quality/Quantity.

a. General.

1. Oil and gas operations, including onsite containment and disposal of water associated with oil and gas operations, shall be conducted in accordance with all applicable federal and state requirements, including COGCC requirements for the protection of groundwater and surface water (including but not limited to COGCC Rules 317B, 324A,B,C and D).

2. Oil and gas operations shall be required to identify the physical source of water and legal entitlement to use such water (e.g., Water Court decree, well permit) for irrigation, dust control, drilling and any other uses related to the oil and gas operations.

3. Oil and gas operations shall use environmentally benign, chemically inert, water-based (i.e., “green”) drilling fluids. Only non-toxic substances may be used in any hydraulic fracturing operation; the use of diesel fuel and known carcinogens and endocrine disruptors in fracturing fluid is expressly prohibited.

b. Surface Water Protection.

1. Nonpoint Source Pollution/Stormwater Management. In addition to the requirements of COGCC Rule 1002(f) for the implementation and maintenance of best management practices to control stormwater runoff, Sec. 7-20-10(d)(5) of this Land Use Code shall apply to all oil and gas operations.

2. Oil and gas operations shall be located a minimum of 1,000 feet from the normal high water mark of any Waters of the State, unless such a setback would create an operational conflict with spacing requirements established by the COGCC. An oil and gas operation that must be located within a 1,000-foot setback of Waters of the State that are not a Classified Water Supply Segment (and, therefore, subject to COGCC Rule 317B) shall be required to fund preliminary baseline water testing of the water body (immediately downgradient of the proposed activity) prior to any surface disturbing activity. Sample results must be

submitted to the County Community Development Department within two (2) months of sample collection. Field measurements shall include field pH, water temperature, dissolved oxygen, and specific conductance. Laboratory determinations shall include: pH, alkalinity and specific conductance; hardness, major cations/anions including chloride, fluoride, sulfate, nitrate, ammonia, sodium; total dissolved solids; methane; volatile organic compounds using Method 8260B or 524.2 for hydrocarbons including BTEX and the alkyl benzene list from Method 524.2, plus tentatively-identified compounds (TICS) including the mass spectra and mass spectral matches for the TICs. The chromatograms should also be provided in the laboratory data report; gasoline range organics (GRO), diesel range organics (DRO), and residual range organics (RRO) using Method 8025B or equivalent; semi-volatile organics using Method 8270C for PAH compounds including tentatively-identified compounds (TICs) with the mass spectra and mass spectral matches for the TICs; chromatograms should also be provided in the laboratory data report; metals including but not limited to arsenic, antimony, copper, lead, iron, calcium, cadmium, cobalt, aluminum, boron, barium, chromium, potassium, magnesium, manganese, mercury, nickel, sodium, selenium, zinc, and gross alpha and beta radioactivity; calculated sodium adsorption ratio; and gross alpha and beta radioactivity. Surface water flow readings shall be conducted at the same time as the water quality testing. The Community Development Department shall have the right to require testing during drilling activities at any time grounds exist for suspecting contamination. Substances tested for during and after drilling and related activities must include all chemicals and additives used during, or created as a result of drilling or related activities. Follow-up testing shall be conducted at the same time of year within twelve (12) months after the conclusion of any drilling activities. EPA-approved analytical methods for drinking water shall be used and analyses performed by a laboratory maintaining a state or nationally-accredited program. To the maximum extent practicable, berms or other containment devices shall be constructed around crude oil, condensate, and produced water storage tanks (in compliance with COGCC Rule 603(e)(12)) that must be located in the 1,000-foot setback.

3. Sampling Protocol. EPA-approved analytical methods for drinking water shall be used and analyses performed by an independent laboratory maintaining a state or nationally-accredited program. Sampling should be performed quarterly in the year before activities begin. County officials may request to be present during sampling. Sampling procedures shall be detailed in a sampling plan submitted to the County as part of the application process. The sampling plan shall include quality assurance measures (precision, accuracy, representativeness, comparability, and completeness); sample custody details (including: numbering and labeling procedures, as well as chain of custody and sealing procedures); calibration procedures and preventative maintenance; analytical procedures (including: sampling containers, preservatives, and laboratory reporting limits); data reduction, validation, and reporting; internal quality control measures; data assessment procedures; and corrective action procedures. All analyses shall include cation-anion balances performed by the laboratory.

4. All test results and information on sample locations required to be provided to the COGCC pursuant to COGCC Rule 317B shall be provided to the Community Development Department at the same time and in the same format(s) they are provided to COGCC.

5. The emergency response procedures required under COGCC Rules 317B and 906 for spills/releases which impact, or threaten to impact any water supply shall include immediate reporting to Pitkin County Dispatch (“911”).

c. Aquifer and Water Well Protection.

1. Oil and gas operations shall not result in or create man-made or man-induced contamination or other significant degradation of the water quality of any localized or regional aquifers. Oil and gas operations shall not result in or create man-made or man-induced contamination or other significant degradation of the water quality of any public or private water wells and shall not significantly degrade the water pressure of any such wells. At a minimum, operators shall be required to comply with the requirements of COGCC Rules 209, 317, 319, 324 and 325.

2. If pits are necessary for any portion of an oil and gas operation, they must comply with the regulations detailed in Sec. 4-30-20(h)(4)(f)(v)(c) below.

d. Monitoring.

1. Oil and gas operations shall, at a minimum, comply with all COGCC surface water and water well testing requirements, including but not limited to the requirements of Sec. 317B.

2. Oil and gas operators will be required to fund the testing of public and private water wells within one (1) mile of the perimeter of the oil and gas operation, or as required by the Director of the Community Development Department based upon an area's hydrogeology. Preliminary baseline testing must be done prior to any surface disturbing activity and should include results from each of the four seasons to account for natural fluctuations. Sample results must be submitted to the County Community Development Department, in addition to each well owner, within two (2) months of sample collection. Field measurements shall include turbidity, pH, water temperature, dissolved oxygen, and specific conductance. Laboratory determinations shall include: pH, alkalinity and specific conductance; hardness, major cations/anions including chloride, fluoride, sulfate, nitrate, ammonia, sodium; total dissolved solids; methane; volatile organic compounds using Method 8260B or 524.2 for hydrocarbons including BTEX and the alkyl benzene list from Method 524.2, plus tentatively-identified compounds (TICS) including the mass spectra and mass spectral matches for the TICs. The chromatograms should also be provided in the laboratory data report; gasoline range organics (GRO), diesel range organics (DRO), and residual range organics (RRO) using Method 8025B or equivalent; semi-volatile organics using Method 8270C for PAH compounds including tentatively-identified compounds (TICs) with the mass spectra and mass spectral matches for the TICs; chromatograms should also be provided in the laboratory data report; metals including but not limited to arsenic, antimony, copper, lead, iron, calcium, cadmium, cobalt, aluminum, boron, barium, chromium, potassium, magnesium, manganese, mercury, nickel, sodium, selenium, zinc, and gross alpha and beta radioactivity; calculated sodium adsorption ratio; and gross alpha and beta radioactivity. The Community Development Department shall have the right to require testing during drilling activities at any time grounds exist for suspecting contamination.

3. Follow-up Testing. Follow-up testing of each well shall be conducted within three (3) months after the conclusion of any drilling activities. Water well testing may be required by the County for three (3) to five (5) years after drilling is completed.

4. Sampling Protocol. EPA-approved analytical methods for drinking water shall be used and analyses performed by an independent laboratory maintaining a state or nationally-accredited program. Sampling should be performed at least quarterly in the

year before activities begin. County officials may request to be present during sampling. Sampling procedures shall be detailed in a sampling plan submitted to the County as part of the application process. The sampling plan shall include quality assurance measures (precision, accuracy, representativeness, comparability, and completeness); sample custody details (including: numbering and labeling procedures, as well as chain of custody and sealing procedures); calibration procedures and preventative maintenance; analytical procedures (including: sampling containers, preservatives, and laboratory reporting limits); data reduction, validation, and reporting; internal quality control measures; data assessment procedures; and corrective action procedures. All analyses shall include cation-anion balances performed by the laboratory.

5. Until such time as final reclamation of a site has been completed (as required by COGCC Rules), all test and survey reports and water well testing information required by COGCC to determine the presence of waste or occurrence of pollution, as well as the results from well-head monitoring to allow safe and convenient determinations of pressure and fluid flow shall be forwarded to the Community Development Department.

iii. Air Quality.

a. General. In addition to the requirements of the COGCC Rules for the protection of air quality (including but not limited to 324A(c), 606B(g), 805b(1)(A)), Secs. 7-100-30 and 7-100-40 of this Land Use Code shall apply to all oil and gas operations.

b. Odors and Emission Controls. Oil and gas operations shall be operated in such a manner that odors and the release of gaseous compounds do not constitute a nuisance or hazard to the public health, safety, welfare, and the environment.

1. At a minimum, with respect to odors and emission controls, the requirements of COGCC Rule 805(b) shall be met.

2. Operators shall, to the extent technically and economically feasible, recycle VOC emissions from tanks, batteries, and separators. If recycling is not feasible, VOC emissions shall be flared.

3. Operators shall further minimize emissions from oil and gas operations by using all feasible “green completion” techniques to reduce flaring and venting of natural gas to the maximum extent feasible where not required by COGCC Rule 805(b)(3), as well as implementing all other best management practices for reducing flaring and venting of natural gas.

4. Operators shall comply with all federal and state regulations governing equipment emissions. To the maximum extent feasible, all fossil fuel-powered engines used on site shall employ the latest emission-reduction technologies (e.g., high pressure direct injection (HPDI) of fuel and exhaust gas recirculation (EGR)).

5. With respect to wells requiring long-term artificial lift, operators shall assess the feasibility of utilizing electric motors for such installations. If the well pad is within a reasonable distance of distribution voltage and the ability to do so is not cost prohibitive due to the demands of property owners from whom easements are required, topography or other physical features (e.g., the presence of a river), electric motors shall be

used. If distribution voltage is not currently within reasonable distance of the proposed well pad, an operator shall contact and provide the surface owner an opportunity to extend distribution voltage to within a reasonable distance of the proposed well pad. It is understood that gas powered artificial lift equipment may be used prior to the time that power is brought to the site. An operator shall place power lines underground except in areas where the topography or subsurface conditions render it infeasible, or in situations in which the landowner requests, and the County approves overhead lines.

c. Fugitive Dust. Fugitive Dust Control Plans shall be required to be submitted and approved by the County for all oil and gas operations (including site preparation activities). Operators shall employ BMPs for control of fugitive dust. Such practices shall include but are not limited to the use of speed restrictions, regular road maintenance, and restriction of construction activity during high-wind days. Additional management practices such as road surfacing, wind breaks and barriers, or automation of wells to reduce truck traffic may also be required.

d. Testing. Preliminary baseline testing of the air in and around all pits other than small temporary reserve pits for VOCs must be done prior to any surface disturbing activity. Testing results must be submitted to the County Community Development Department. Operators shall then analyze these areas for elevated levels of VOCs on an ongoing basis. If elevated levels are detected, the operator must notify the County and take immediate steps to eliminate the problem.

iv. Wildlife.

a. General. The COGCC 1200-Series Rules for the protection of wildlife species and habitat shall be adhered to, as well as the requirements of Secs. 7-20-70 and 7-20-80 of this Land Use Code. Further, to ensure that infrastructure placement and the timing of development activities avoids and minimizes impacts to wildlife resources, a Wildlife Impact Avoidance and Minimization Plan shall be prepared and submitted with an application for an oil and gas operations development permit. The Wildlife Impact Avoidance and Minimization Plan must be approved by the County prior to issuance of a development permit.

b. Wildlife Impact Avoidance and Minimization Plan.

1. The Wildlife Impact Avoidance and Minimization Plan must assess wildlife needs and operational constraints and propose an adaptive management program (that provides for monitoring and evaluation, documents environmental changes, and implements mid-course corrections to development and operational practices). The Wildlife Impact Avoidance and Minimization Plan shall incorporate: (1) measures to be undertaken to educate field personnel regarding specific wildlife concerns, (2) measures to consolidate development activities and production facilities in order to minimize disturbance to wildlife (including displacement of wildlife due to audible, olfactory and visual disturbances) and to habitat, (3) measures to consolidate development activities and production facilities in order to minimize direct habitat loss and fragmentation, and (4) measures to reduce direct conflict with wildlife and to prevent wildlife from accessing equipment. The Wildlife Impact Avoidance and Minimization Plan may reference an approved Comprehensive Drilling Plan where such a plan has been developed under COGCC Rule 216.

2. In addition to the requirements of the COGCC 1200-Series Rules and Secs. 7-20-70 and 7-20-80 of this Land Use Code, the CDOW's *Actions to Minimize Adverse Impacts to Wildlife Resources* (adopted October 2009), as amended from time to time (including any and all versions finally adopted by the CDOW), shall be consulted for acceptable and preferred management actions (including species-specific recommendations) to be included, as applicable, in the Wildlife Impact Avoidance and Minimization Plan.

3. The Wildlife Impact Avoidance and Minimization Plan shall be developed on a site-specific basis unless the applicant is proposing to develop multiple oil and gas operations. In such instances, the applicant may submit a multi-site Wildlife Impact Avoidance and Minimization Plan for review and approval. The multi-site The Wildlife Impact Avoidance and Minimization Plan shall address the cumulative impacts to wildlife and cover all of the items enumerated above.

c. Animal-Proof Dumpsters & Refuse Containers. Oil and gas operations shall adhere to County regulations requiring the use of animal-proof refuse containers and dumpsters.

v. Waste Management and Disposal.

a. Non-Exploration and Production (E&P) Waste.

1. Storage, treatment and disposal of solid and hazardous waste generated from oil and gas operations shall comply with applicable federal and state regulations, including but not limited to 6 CCR 1007-2 and 1007-3.

b. E&P Waste.

1. Operators shall ensure that all E&P waste is properly stored, handled, transported, treated, recycled or disposed of in a manner that will prevent threatened or actual adverse environmental impacts to air, water, soil or biological resources. At a minimum, management of E&P waste shall comply with COGCC regulations (including but not limited to the requirements of COGCC Rules 325, 326, 906 and 907), as well as the additional requirements specified below.

2. To the maximum extent feasible, closed loop drilling systems and closed containment of stored fluids shall be utilized in oil and gas operations. To the maximum extent practicable, the final disposition of produced water and other E&P waste from an oil and gas operation shall be by the most environmentally beneficial method based upon its relevant characteristics. A written management plan for E&P waste minimization through beneficial use, reuse and recycling of E&P waste is required for oil and gas operations development approval. The plan shall describe the proposed use of the waste, method of waste treatment, product quality assurance and shall include a copy of any certification or authorization that may be required by other federal or state regulations.

3. A development permit for a centralized, non-commercial E&P waste management facility requires the applicant to satisfactorily demonstrate that operations will not jeopardize the health, welfare, or safety of Pitkin County residents or the quality of the environment including ground and surface water resources, air quality, and wildlife.

c. Pits.

1. Limitation. To prevent contamination of groundwater and soils and/or to conserve water, use of pits shall be minimized. Pits will be permitted only when an operator can demonstrate that no feasible alternative exists to the use of a pit, and that the groundwater, surface water, soil and wildlife resources will be fully protected. Any permitted pits shall be located and constructed to ensure no contamination of surface water bodies in the event of a leak or overflow.

2. COGCC Compliance. Pits shall comply, at a minimum, with all requirements under COGCC 900-Series Rules regarding pits.

3. Lining Required for All Pits. Unlined pits shall not be allowed under any circumstances. All pits shall be fully lined with an impermeable liner meeting the requirements of COGCC Rule 904(b). Liners for all pits shall have a minimum thickness of 60 mils.

4. Pit Foundations. The foundation for the pit liner shall be constructed with soil having a minimum thickness of twenty-four (24) inches after compaction covering the entire bottom and interior sides of the pit, and shall be constructed so that the hydraulic conductivity shall not exceed  $1.0 \times 10^{-7}$  cm/sec after testing and compaction. The synthetic or fabricated liner shall cover the bottom and interior sides of the pit with the edges secured with at least a twelve (12) inch deep anchor trench around the pit perimeter. The anchor trench shall be designed to secure, and prevent slippage or destruction of the liner material. As an alternative to the soil foundation described above, a secondary liner which is a manufactured hydraulic barrier (typically consisting of bentonite clay or other very low permeability material supported by geotextiles or geomembranes which are held together by needling, stitching, or chemical adhesives) may be used.

5. Leak Detection Systems. The County may require a leak detection system for a pit or that another equivalent protective measure be instituted by the operator (e.g., increased record-keeping requirements, monitoring systems and underlying gravel fill sumps and lateral systems).

6. Radioactive and Hazardous Materials. All substances intended for placement in the pit must first be tested for radioactivity, and be cleaned of residual oil, grease and toxic substances. No radioactive or other hazardous materials may be placed in pits.

7. Fencing and Netting. Fencing of pits is required to prevent access by persons, wildlife or livestock. Netting or alternative method of covering pits acceptable to the CDOW shall be required in order to prevent access and mortality of birds and other animals.

8. Closure. Pits shall be closed in accordance with COGCC Rule 905 and the COGCC 1000-Series Rules, as applicable.

9. Pit Liner Disposal. Pit liners shall be removed and disposed of off-site to ensure that a permanent subsurface barrier does not inhibit revegetation, reclamation, or other environmental processes.

d. Spills and Releases.

1. Control; Reporting. Spills and releases of non E&P waste and E&P waste shall be controlled/contained immediately upon discovery and shall be reported in accordance with applicable federal and state regulations (including but not limited to COGCC Rule 906). Spills and releases of any size, of any substance, which adversely impacts or threatens to adversely impact the public health, safety and welfare, or any surface water (including ponds and ditches), groundwater, livestock, or wildlife shall be reported to Pitkin County Dispatch (“911”) as soon as practicable.

2. Remediation; Information. Impacts from spills and releases shall be investigated and remediated as soon as practicable, but in all cases within the timeframes mandated by applicable federal and state regulations. Operators shall promptly respond to all requests for information reasonably necessary for the County to ensure that all adverse impacts or threatened impacts to the public health, safety and welfare, or any surface water (including ponds and ditches), groundwater, livestock, or wildlife have been controlled/contained and remediated and that sufficient steps have been taken to ensure prevention of a similar incident in the future. Upon request, an operator shall supply the Community Development Director or his/her designee with a copy of any spill/release report or remediation plan required to be prepared and filed with any state or federal agency as a result of an incident.

vi. Final Site Reclamation. Final site reclamation must be conducted pursuant to standards detailed in the COGCC 1000-series regulations, including Rule 1004 and Rule 1101 for pipelines.

**5. Technical Infeasibility Waiver.**

a. Requirements. One or more of the oil and gas operation standards or requirements set forth in this Sec. 4-30-20(h) may be waived during the application process, if the applicant demonstrates that it is technically infeasible to comply with the standard(s). To be granted a waiver from a standard for technical infeasibility, the burden is on the applicant to demonstrate with clear and convincing evidence:

i. Conduct of the oil and gas operation in compliance with the County standard or requirement would result in an actual, material, irreconcilable operational conflict with a mandatory state or federal statute, regulation, permit condition or other requirement; or

ii. There is no economical technology commercially available to conduct the oil and gas operation in compliance with the County standard or requirement, and the applicant will implement the best available technology to conduct the oil and gas operation in compliance with the County standard or requirement to the maximum extent feasible; and

iii. The waiver will not cause substantial injury to the owner or occupant of adjacent land(s); and

iv. The waiver will not cause substantial injury to the environment, or the public health, safety and welfare generally.

b. Operational Conflict. For purposes of this section, an operational conflict

exists under the Oil and Gas Conservation Act and/or its implementing regulations where the County requirement or regulation actually conflicts in operation with the state statutory or regulatory scheme, and such conflict would unreasonably materially impede or destroy the state's interest in the development, production, and utilization of oil and gas resources in the state, and the protection of the public health, safety and welfare. An operational conflict may occur where the County regulation or requirement prohibits an activity which the COGCC, or its regulations has clearly authorized, or authorizes an activity which the COGCC, or its regulations has clearly prohibited. Additional County requirements in areas regulated by the COGCC, which also fall within County land use powers and which are necessary to protect the public health, safety and welfare under the facts of the specific application presented, and which do not impose unreasonable burdens on the applicant, shall be presumed not to present an operational conflict, recognizing that "[n]othing in the [COGCC Rules] shall establish, alter, impair or negate the authority of local and county governments to regulate land use related to oil and gas operations, so long as such local regulation is not in operational conflict with the [Oil and Gas Conservation Act] or regulations promulgated thereunder." COGCC Rule 201.

c. Elements of a Waiver. A waiver under this Sec. 4-30-20(h)(5) may be granted, in whole or in part, but only to the extent necessary to protect the federal or state government's demonstrated compelling interest, or to alleviate that burden on the applicant that has been found to be unreasonable. The Community Development Department may condition the development permit as necessary to protect the environment and the public health, safety and welfare by requiring mitigation of any adverse impacts arising from the grant of approval.

## **6. Financial Assurance**

a. Basis for Requirement. Oil and gas operations inherently include a potential for accidents and unforeseen events, and serious and long term damage to the health of the citizens, environment, water resources and wildlife of the County. This potential for damage is unlike that associated with any other permitted activity in the County. Recognizing its fiscal responsibility to its citizens, the County has elected to augment COGCC-required financial assurances in order to ensure fulfillment of the State's mandate to protect the public's health, the environment, wildlife and water from adverse impacts of oil and gas operations. In addition to any and all development exactions and impact fees which may be required pursuant to Chapter 8 of this Land Use Code, the following additional agreements and financial requirements shall be imposed as conditions of approval for development permits for oil and gas operations.

b. Improvement Agreement. To ensure compliance with the mitigation and other performance requirements of this Sec. 4-30-20(h) and the specific conditions of its development permit, the applicant shall execute and fund with the County an improvement agreement acceptable to the County in form and substance and amount and type of security. The improvement agreement shall constitute the operator's agreement to perform all conditions identified as requirements of development permit approval. The improvement agreement shall specifically identify such requirements (including plans, drawings and schedules for completion) and shall be substantially in the form of the County's standard improvement agreement (as developed and provided by the County Attorney's Office from time to time). The improvement agreement may include requirements for certification of completion, partial releases of the financial security, hold-over of financial security to ensure later performance (e.g., successful site revegetation after multiple growing seasons), substitution of security, and other requirements deemed appropriate by the County Attorney.

c. Financial Guarantee. The improvement agreement shall require the operator to provide to the County a guarantee of financial security, acceptable to the County, in an amount established by the Community Development Director or his/her designee and based on no less than 125 percent (125%) of the estimated cost of the conditions to be performed, and payable on demand to the County. The amount of such financial security will be based upon cost estimates provided, as an initial matter, by the operator (subject to review and approval by the Community Development Director and his/her designee(s)). The financial security shall satisfy the requirements of Sec. 2-20-130(c)(3).

d. Assurance of Completion of Conditions. The improvement agreement shall provide that if the Board of County Commissioners determines that any of the required conditions are not performed as provided in the Improvement agreement, including reasonable requirements for the correction of deficiencies upon notice thereof, the Board may draw upon the financial security as may be necessary to complete the conditions of approval in accordance with the specifications included in the Improvement agreement and the Board may exercise any or all of the other remedies available to it pursuant to the Improvement agreement and this Land Use Code, as well as any other remedies available to it at law or in equity.

## **7. Records; Other Reports**

a. Maintenance of Records; Access. An operator shall make and keep appropriate books, inventories and other records covering the oil and gas operation. These records must be maintained in a readily-retrievable format at the operator's local field office. Records maintained shall include those described in COGCC Rules 205 and 327, and the County's obligation to maintain the confidentiality of such records (as applicable) shall be governed by the confidentiality requirements of COGCC Rule 205. Records shall be made available to the County for inspection under the terms, and within the time periods specified in COGCC Rule 205. Records shall be kept and made available to the County for the time periods specified in COGCC Rule 205. In the event of amendment or repeal of Rule 205, the County will still require maintenance and access to records to ensure the health, welfare, and safety of local residents.

b. Compliance Checklist. An operator shall complete and retain a COGCC Compliance Checklist (Form 36) for the oil and gas operation meeting all of the requirements (including odor management) specified for other counties in COGCC Rule 206(b). An operator shall provide the Community Development Director or his/her designee with a copy of the current COGCC Compliance Checklist for an oil and gas operation within five (5) days of receiving a written request.

c. Tests and Surveys; Corrective Action Reports. An operator shall provide written notice to the Community Development Director within five (5) days of receiving a request from the COGCC for a test or survey to be made under COGCC Rule 207, or for corrective action to be taken under COGCC Rule 208. The written notice shall identify the nature of the COGCC request, actions to be taken by the operator, and the time period for completion of the actions. In the event of a loss of well control that is required to be reported to COGCC (pursuant to COGCC Rule 327), the operator shall provide written notice to the Community Development Director identifying the nature of the occurrence(s) and corrective actions taken within fifteen (15) days after conclusion of the occurrence(s). Test reports and other records shall be maintained and made available to the County if and as necessary to

protect the public health, safety and welfare, including the environment and wildlife resources, under the same terms specified in subsection (a) above.

## 8. Limitations

a. Abandonment. A development permit approved and issued for an oil and gas operation shall not constitute authority for the re-entering and drilling of an abandoned well. Re-entry and drilling of an abandoned well shall require a new development permit. Any shut-in or temporarily abandoned well approved by the COGCC Director pursuant to COGCC Rule 319(b) shall not be considered an abandoned well for purposes of this section.

b. Permit Duration. Oil and gas operations shall be commenced within one (1) year of the date of approval of a development permit, except where the COGCC has specifically extended the life of a drilling permit to two (2) years. Failure to commence the permitted activity within stipulated timeframes shall cause the development permit to expire. A new development permit may be approved subject to the submission and full review of a new application. The development permit shall be valid for as long as the applicant maintains the conditions of approval. If the COGCC does not approve a project for which a development permit was obtained, then the County's development permit will be terminated.

c. Violations. If the conditions of approval of the development permit are not maintained, the applicant shall be considered in violation of these regulations and the development permit subject to the penalty and revocation provisions of this Land Use Code.

## 9. Amendments

a. General. Where an application for an oil and gas operations development permit has been submitted or issued, and the applicant desires to modify the oil and gas operations by changes to equipment, site layout, approved operating plan, etc., an amendment to the original development application or permit (pursuant to Land Use Code Sec. 2-20-150) may be required.

b. Emergency Amendments. Modifications which the operator determines in good faith are required in order for the oil and gas operations to continue operating and must be done immediately in order to maintain the existing level of production, may be undertaken on an emergency basis, without prior notice to or approval by the County, *provided that* such modifications do not include the addition of equipment or operation of any oil and gas facility which would exceed the requirements of these regulations. The operator shall provide the Community Development Department with notification of emergency modifications by filing an application for an amendment to the development permit, specifying the modifications made, within two (2) working days of commencement of the emergency modifications.

**VII. The following definitions are deleted in their entirety from Chapter 11, Sec. 11-10 (Definitions):**

**ABANDONMENT**

**COMPRESSOR STATION**

**DEVELOPABLE**

**EVAPORATION**

**GAS WELL**

**GATHERING SYSTEM**

**MULTIPLE COMPLETION WELL**

**O.G.C.C.**

**OIL AND GAS EXTRACTION**

**OIL AND GAS FACILITIES**

**OPERATING PLAN**

**OPERATOR**

**POLLUTION**

**PRODUCING (IN PRODUCTION)**

**RETAINING PIT**

**SECURITY FENCING**

**SOUR GAS**

**SPACING**

**TRANSMISSION PIPELINE**

**VIII. The following definitions are added to Chapter 11, Sec. 11-10 (Definitions):**

**AQUIFER** means a geologic formation, group of formations or part of a formation that can both store and transmit groundwater. It includes both the saturated and unsaturated zone but does not include the confining layer which separates two adjacent aquifers.

**BEST MANAGEMENT PRACTICES (BMPs)** means practices that are designed to prevent or reduce impacts to air, water, soil, or biological resources, and to minimize adverse impacts to public health, safety and welfare, including the environment and wildlife resources.

**CDOW** means the Colorado Division of Wildlife.

**CDPHE** means the Colorado Department of Public Health and Environment.

**CHEMICAL PRODUCT** means any substance consisting of one or more chemicals that is marketed or sold as a commodity; “chemical product” does not include substances that are known to be entirely harmless, such as sand and similar natural substances.

**CLASSIFIED WATER SUPPLY SEGMENT** means perennial or intermittent streams, which are surface waters classified as being suitable or intended to become suitable for potable water supplies by the CWQCC.

**COGCC** means the Oil and Gas Conservation Commission of the State of Colorado.

**COGCC Rules** means the COGCC Practice and Procedure regulations codified at 2 CCR 404-1.

**COMPLETION** means, with respect to an oil well, when the first new oil is produced through wellhead equipment into lease tanks from the ultimate producing interval after the production string has been run. A gas well shall be considered completed when the well is capable of producing gas through wellhead equipment from the ultimate producing zone after the production string has been run. A dry hole shall be considered completed when all regulatory requirements for plugging are complied with. Wells other than oil or gas wells shall be considered completed ninety days after reaching total depth.

**COMPREHENSIVE DRILLING PLAN** shall mean a plan created by one or more operators covering future oil and gas operations in a defined geographic area within a geologic basin. The plan may: (a) identify natural features of the geographic area, including vegetation, wildlife resources, and other attributes of the physical environment; (b) describe the operator’s future oil and gas operations in the area; (c) identify potential impacts from such operations; (d) develop agreed-upon measures to avoid, minimize, and mitigate the identified potential impacts; and (e) include other relevant information.

**CWQCC** means the Colorado Water Quality Control Commission.

**DEDICATED INJECTION WELL**, when used in the context of oil and gas operations, shall mean any well as defined under 40 C.F.R. §144.5 B, 1992 Edition, (adopted by the U.S. Environmental Protection Agency) used for the exclusive purpose of injecting fluids or gas from the surface. The definition of a dedicated injection well does not include gas storage wells.

**DRILLING PITS** means those pits used during oil and gas drilling operations and initial completion of a well.

**EXPLORATION AND PRODUCTION WASTE (E&P WASTE)** means those wastes associated with operations to locate or remove oil or gas from the ground or to remove impurities from such substances and which are uniquely associated with and intrinsic to oil and gas exploration, development, or production operations that are exempt from regulation under the Resource Conservation and Recovery Act.

**FIELD**, when used in the context of oil and gas operations, means the general area which is underlaid or appears to be underlaid by at least one pool; “field” shall include the underground reservoir or reservoirs containing oil or gas or both. The words “field” and “pool” mean the same thing when only one underground reservoir is involved; however, “field”, unlike “pool”, may relate to two or more pools.

**FINANCIAL ASSURANCE** means a surety bond, cash collateral, certificate of deposit, letter of credit, escrow account, lien on property, security interest, guarantee, or other instrument or method in favor of and acceptable to the County. With regard to third party liability concerns related to public health, safety and welfare, the term encompasses general liability insurance.

**FLOWLINES**, when used in the context of oil and gas operations, means those segments of pipe from the wellhead downstream through the production facilities ending at: in the case of gas lines, the gas metering equipment; or in the case of oil lines the oil loading point or LACT unit; or in the case of water lines, the water loading point, the point of discharge to a pit, the injection wellhead, or the permitted surface water discharge point.

**GAS FACILITY** means those facilities that process or compress natural gas after production-related activities which are conducted at or near the wellhead and prior to a point where the gas is transferred to a carrier for transport.

**GAS STORAGE WELL** means any well drilled for the injection, withdrawal, production, observation, or monitoring of natural gas stored in underground formations.

**GATHERING LINE** means a pipeline and equipment as described in COGCC regulations that transports gas from a production facility to a natural gas processing plant or transmission line or main.

**GREEN COMPLETION PRACTICES** means those practices intended to reduce emissions of salable gas and condensate vapors during cleanout and flowback operations prior to the well being placed on production.

**LACT** (“Lease Automated Custody Transfer”) means the transfer of produced crude oil or condensate, after processing or treating in the producing operations, from storage vessels or automated transfer facilities to pipelines or any other form of transportation.

**MINIMIZE ADVERSE IMPACTS**, when used in the context of oil and gas operations, means, wherever reasonably practicable, to avoid adverse impacts to wildlife resources or significant adverse impacts to the environment from oil and gas operations, minimize the extent and severity of those impacts that cannot be avoided, mitigate the effects of unavoidable remaining impacts, and take into consideration cost-effectiveness and technical feasibility with regard to actions and decisions taken to minimize adverse impacts.

**MULTI-WELL PITS**, when used in the context of oil and gas operations, shall mean pits used for treatment, storage, recycling, reuse, or disposal of E&P wastes generated from more than one (1) well that do not constitute a centralized E&P waste management facility and that will be in use for no more than three (3) years.

**MULTI-WELL SITE**, when used in the context of oil and gas operations, means a common well pad from which multiple wells may be drilled to various bottomhole locations.

**OIL AND GAS FACILITY** means equipment or improvements used or installed at an oil and gas location for the exploration, production, withdrawal, gathering, treatment, or processing of oil or natural gas.

**OIL AND GAS OPERATION(S)** means the exploration for oil and gas, including the conduct of seismic operations and the drilling of test bores; the siting, drilling, deepening, recompletion, reworking, or abandonment of an oil and gas well, underground injection well, or gas storage well; production operations related to any such well including the installation of flowlines and gathering systems; the generation, transportation, storage, treatment, or disposal of exploration and production wastes; and any construction, site preparation, or reclamation activities associated with such operations. Unless the context otherwise requires, the term “oil and gas operation” shall include an oil and gas facility.

**OPERATOR** means any person who exercises the right to control the conduct of an oil and gas operation.

**PIT** means any natural or man-made depression in the ground used for oil or gas exploration or production purposes; “pit” does not include steel, fiberglass, concrete or other similar vessels which do not release their contents to surrounding soils.

**PRODUCTION FACILITIES** means all storage, separation, treating, dehydration, artificial lift, power supply, compression, pumping, metering, monitoring, flowline, and other equipment directly associated with oil wells, gas wells, or injection wells.

**PRODUCTION PITS**, when used in the context of oil and gas operations, means those pits used after drilling operations and initial completion of a well, including pits at natural gas gathering, processing and storage facilities.

**RELEASE** means any unauthorized discharge of E&P waste to the environment over time.

**RESERVE PITS**, when used in the context of oil and gas operations, shall mean those pits used to store drilling fluids for use in drilling operations or to contain E&P waste generated during drilling operations and initial completion procedures.

**SENSITIVE AREA** is an area vulnerable to potential significant adverse groundwater impacts, due to factors such as the presence of shallow groundwater or pathways for communication with deeper groundwater; proximity to surface water, including lakes, rivers, perennial or intermittent streams, creeks, irrigation canals, and wetlands. Additionally, areas classified for domestic use by the Water Quality Control Commission, local (water supply) wellhead protection areas, areas within 1/8 mile of a domestic water well, areas within 1/4 mile of a public water supply well, ground water basins designated by the Colorado Ground Water Commission, and surface water supply areas are sensitive areas.

**SPILL** means any unauthorized sudden discharge of E&P waste to the environment.

**TEMPORARILY ABANDONED WELL** means an oil and gas well which is incapable of production or injection without the addition of one or more pieces of wellhead or other equipment.

**WELL**, when used in the context of oil and gas operations, means an oil or gas well, a hole drilled for the purpose of producing oil or gas, a well into which fluids are injected, a stratigraphic well, a gas storage well, or a well used for the purpose of monitoring or observing a reservoir.

**WELL SITE**, when used in the context of oil and gas operations, means the areas that are directly disturbed during the drilling and subsequent operation of, or affected by production facilities directly associated with, any oil well, gas well, or injection well and its associated well pad.

**WILDLIFE RESOURCES** shall mean fish, wildlife, and their aquatic and terrestrial habitats.

**IX. The term “oil and gas operation” is substituted for the term “oil and gas extraction” each time it appears in this Land Use Code.**

## ATTACHMENT B

The Pitkin County *Land Use Application Manual* is hereby amended as follows:

- A footnote is added after the title of Sec. 1, as follows:

1) GENERAL APPLICATION INFORMATION (REQUIRED FOR ALL APPLICATIONS)\*

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\* Because of the unique nature of development for oil and gas operations (from both a regulatory and land use perspective), special requirements apply to these Special Review applications. See Sec. 2.2.15.

- Sec. 2.2.15 is deleted in its entirety and the following language is substituted in its place:

### ***2.2.15 – Oil and Gas Operations (Special Review)***

***Review Process and Criteria for Approval:*** The process for review of an application for Special Review for Oil and Gas Operations and criteria for approval are described in Sections 2-30-30(h), 2-40-20(e) and 4-30-20(h) of the Pitkin County Land Use Code. This is a special review and requires a noticed public hearing, as described in Section 2-20-100 of the Land Use Code. The applicant is responsible for both mailed and posted notice and completion and submission of the affidavit confirming that notice has been properly performed. A special site visit may also be required, as described in Section 2-40-20(e).

***Development Permit Application Procedures:*** Applicants shall schedule a pre-application conference with the Planning Department staff prior to submittal of an oil and gas operations development permit application. During this conference, Planning Department staff will determine whether more than one type of approval will be needed (e.g., designation of an “activity envelope”) and if any modifications to the standard application requirements are warranted. They will also determine the estimated fee for application review. This information will be summarized for applicant in a pre-application conference summary sheet.

Unless otherwise indicated on a pre-application conference summary sheet, an applicant seeking approval to conduct oil and gas operations shall submit an application to the Planning Department containing all of the information and documentation specified below. An applicant may provide a copy of an application for a Permit-to-Drill or other application submitted to the Colorado Oil and Gas Conservation Commission (COGCC), a Comprehensive Drilling Plan, or other material as documentation for one or more of the following submittal requirements if it contains information sufficient to demonstrate compliance with County regulations and that information is clearly highlighted and cross-referenced to County requirements.

The development permit application shall be provided in the number of copies specified on the pre-application conference summary sheet and shall be accompanied by the appropriate application fee (including all referral fees).

Pursuant to Sec. 2-20-70 of the Land Use Code, the Planning Department will not begin evaluation of an oil and gas operations development permit application until a complete and fully-executed application has been received, with all required documentation and fees. It is the obligation of the applicant to ensure the sufficiency of the application package and fees prior to

submittal.

**Development Permit Application Requirements:** An applicant for a development permit to conduct oil and gas operations shall submit the following information and documents:

- a. **Pre-Application Conference Summary Sheet (Copy of Original).**
- b. **Fully-Executed Pitkin County Planning Department “Agreement for Payment of Land Use Application Fees”.**
- c. **Applicant and Operator Information.** The legal name, fictitious name (if any), business address, telephone and fax numbers, and e-mail address for the applicant. If the applicant is to be represented by an agent, a notarized letter signed by an authorized representative of the applicant authorizing the agent to represent the applicant and also stating the same information for the agent. The legal name, fictitious name (if any), business address, telephone and fax numbers, and e-mail address for the operator, where the operator is not the applicant.
- d. **Surface Ownership Information.** Documentation of surface ownership, consisting of a current Certificate of Title from a title company, or attorney licensed to practice law in the State of Colorado. Legal name, fictitious name (if any), address, telephone and fax numbers, and e-mail address of the surface owner of the property. Documentation of surface owner notification required by COGCC Rules.
- e. **Mineral Estate Ownership Information.** Documentation of mineral estate ownership, consisting of a current Certificate of Title from a title company, or attorney licensed to practice law in the State of Colorado. Legal name, fictitious name (if any), address, telephone and fax numbers, and e-mail address of the owner of the mineral rights.
- f. **Right of Use.** Copies of any agreements, licenses, easements and leases affecting the area where the oil and gas operations are proposed to be conducted.
- g. **List of Adjacent Landowners.** A listing of the legal names and addresses of all landowners (as shown on the current records of the applicable county assessor’s office) and a description of all current land uses that are adjacent to the boundaries of the parcel on which the oil and gas operations are proposed to be conducted (including all properties that would be adjacent to the parcel except for the existence of a roadway). A listing of the legal names and addresses of all additional landowners within 1,500’ of the proposed oil and gas operations (as shown on the current records of the applicable county assessor’s office) and a description of all of their current land uses. Documentation of surface owner notification required by COGCC Rules.
- h. **Parcel Location.** The Parcel Identification Number, legal description (referencing lot and block or tract numbers, or metes and bounds), and property address of the parcel on which the oil and gas operations are proposed to be located. Directions for locating the property from the nearest major public intersection.
- i. **Identification of Previously Approved Uses.** Recorded copies of any prior land use approvals and copies of any permits previously issued for the parcel on which the oil and gas operations are proposed to be conducted.

**j. Site Plan(s).** One or more neat, legible drawings prepared on twenty-four inch (24”) by thirty-six inch (36”) format sheets. The drawing(s) shall show all pertinent dimensions and be clearly labeled. The site plan(s) must contain the following information:

- Title identifying type of land use review and the name of the project and property;
- Vicinity map at a scale of no smaller than one inch (1”) equals two thousand feet (2,000’) and a size of no less than five inch (5”) by five inch (5”) showing commonly known landmarks and the relationship of the parcel to proximate roads;
- Boundaries of the parcel;
- North directional arrow;
- Date;
- Legal description of the parcel;
- Existing water courses (including intermittent streams), streambeds known or apparent from field study, ponds, irrigation ditches and other water structures, drainage ways, wetlands, and other surface water features, riparian areas, and general vegetative cover on the parcel;
- Existing water courses (including intermittent streams), ponds, irrigation ditches and other water structures, drainage ways, wetlands, and other surface water features, riparian areas, and general vegetative cover within one (1) mile of the parcel;
- Location and dimensions of proposed activity envelope(s) and access drive(s)/road(s) on the parcel, depicted at a scale of not smaller than one inch (1”) equals fifty feet (50’), including setbacks from property lines;
- Location and boundaries of all easements, recorded or historically used, and leases that provide access to or across, or other use of the parcel;
- Location of all public and private roads that traverse and/or provide access to the proposed development, and identification of the public or private entity having jurisdiction over each road;
- Location of all utility easements and rights-of-way on the parcel and identification of the public or private entity owning each;
- Existing topographic information depicting two foot (2’) contour intervals within the proposed activity envelope(s) and along the proposed access drive(s)/road(s), and extending at least fifty feet (50’) beyond the activity envelope and drive(s)/road(s) (additional topographic information for the parcel and surrounding region may be required by the Planning Department on a site-specific basis);

- A slope analysis: slopes shall be delineated within the proposed activity envelope with two foot (2') contour intervals; slopes between each two foot (2') contour in each of the following categories shall be designated by a distinct graphic pattern:

- 1) Slopes that are  $\geq$  fifteen percent (15%), but  $<$  thirty percent (30%);
- 2) Slopes that are  $\geq$  thirty percent (30%), but  $<$  forty-five percent (45%); and
- 3) Slopes that are  $\geq$  forty-five percent.

- Proposed topography following development: two foot (2') contour intervals should be depicted within the proposed activity envelope(s) and along the proposed access drive(s)/road(s), and extending at least fifty feet (50') beyond the activity envelope and drive(s)/road(s) (additional topographic information for the parcel may be required by the Planning Department on a site-specific basis);

- Location of all geologic hazards on the parcel;

- Any portion of a 100-year floodplain, as depicted on the FEMA Flood Insurance Rate Maps, or as determined by an independent floodplain study conducted by an engineer, or as determined by the Pitkin County Floodplain Administrator; the ordinary high-water line shall be shown on the plan;

- Existing improvements on the parcel and the location and size of all proposed structures, pipelines, tanks, wells, pits, flow lines, impoundment facilities, staging and storage areas and equipment; proposed location and size of all gathering system lines for each individual well;

- Location of special district boundaries, municipalities or subdivisions within one (1) mile of the parcel;

- Location of all security measures to be implemented on the parcel;

- Location of other oil and gas operations (including all wells) within one (1) mile of the parcel.

**k. Characteristics and Current Condition of the Site.** Identification/description of physical characteristics and current conditions of the site where oil and gas operations are proposed to occur, including streams, irrigation ditches, ponds, soils, roads, vegetation (type, character, density), geologic hazards, and any other characteristics requested by the Planning Department to determine potential impacts. Indications if trees or other vegetation have been removed and changes caused either by weather-related or human activity within the past five (5) years.

**l. Existing and Future Land Uses.** A written summary of the existing uses of the parcel and the reasonably foreseeable future land uses of the parcel after completion of the oil and gas operations.

**m. Color Photographs.** 8-1/2" x 11" photographs of the site and adjacent areas facing north, south, east, and west; photographs should be taken during a season when vegetative features and types can be easily identified and documented.

**n. Applications and Permits.** Copies of all local, state and federal applications authorizing or required for conduct of the proposed oil and gas operations and permits, when issued.

**o. Development and Oil and Gas Operations Plan.** Summary of the projected development scenario, development of well pads, wells, roads, pipelines, and major facilities for the proposed site and adjacent lands owned or operated by the applicant. A plan including the projected start and completion dates for construction and operations, the method of drilling, hours of oil and gas operations, description of major equipment to be used (including horsepower), transportation, production, and post-operational activities (including a site reclamation plan pursuant to COGCC requirements).

**p. Water Use and Availability.** Detailed data on the projected use and reclamation of water, its availability and source, including proof of legal water rights.

**q. Water Resources.** An inventory and location of all water bodies within one (1) mile of the proposed oil and gas operations. A description of existing water quality of all such water bodies (based upon a current baseline water quality analysis). A detailed analysis of the hydrogeology underlying the site (Including identification of any known or suspected springs and freshwater aquifers) and a description of existing groundwater quality (based upon a current baseline groundwater quality analysis).

**r. Non-point Source Pollution Impacts.** A description of potential non-point source pollution associated with the proposed oil and gas operations and proposed mitigation, including a drainage and erosion control plan and a stormwater management plan that identifies existing and proposed drainage patterns and the methods for controlling erosion during construction and all phases of oil and gas operations.

**s. Sewage.** A plan for sewage handling which demonstrates compliance with the County's Onsite Wastewater Treatment System Regulation, as applicable.

**t. Waste Management.** A plan for the handling, storage, transportation, treatment, recycling, and disposal of waste generated by the oil and gas operations, including exploration and production waste.

**u. Vegetation Management; Noxious Weeds.** A summary of the impacts of the oil and gas operations on vegetation and a proposed mitigation plan. A plan for the management and prevention of noxious weeds and/or harmful introduced species on the site that is compliant with state law and the Pitkin County Weed Management Plan. The noxious weeds management plan shall include a description of how the applicant will ensure that herbicides are properly applied in accordance with the manufacturer's directions and how the health and safety hazards to individuals applying the herbicides have or will be addressed through proper training.

**v. Wells.** An inventory and location of all public and private wells within one (1) mile of the proposed oil and gas operations and the applicant's water quality testing plan.

**w. Access and Transportation Routes.** A map that identifies the access route to, and within the parcel, and a narrative estimating the number and types of vehicles anticipated per day, including weights, that will travel over the route. An analysis of the impacts of the oil and gas operations to the roadway system within the County and identification of measures that will

be taken to minimize such impacts.

**x. Agricultural and Irrigated Land Protection Plan.** Identification of irrigation ditches and other water structures, ownership of water rights appurtenant thereto, and evaluation of any impacts to the structures, water rights, or water quality from the oil and gas operations. Proposed avoidance and mitigation measures to minimize the water quality/quantity impacts associated with the oil and gas operation. A site-specific plan to prevent or mitigate impacts on agricultural and/or irrigated land uses in the vicinity of the proposed oil and gas operations.

**y. Livestock and Grazing Protection Plan.** A site-specific plan to prevent or mitigate impacts on livestock, grazing permits, and/or grazing permittees in the vicinity of the proposed oil and gas operation.

**z. Visual Mitigation Plan.** Measures proposed to prevent or mitigate the visual impacts of the oil and gas operations, including a site-specific lighting plan.

**aa. Sound and Vibration Suppression/Mitigation Plan.** A site-specific plan to minimize and/or abate vibrations and noise emanating from the proposed oil and gas operations, and which identifies time periods during which excess noise can adversely impact wildlife.

**bb. Wildlife and Wildlife Habitat Analysis.** An analysis of wildlife resources and an evaluation of the impacts of the oil and gas operation on wildlife resources, as well as a Wildlife Impact Avoidance and Mitigation Plan.

**cc. Soil Suitability.** Maps and tables identifying the soil types that will be disturbed or impacted by the proposed oil and gas operations. Such information may include COGCC Form 24 “Soil Analysis Report” and shall include a soil map unit description from the Natural Resources Conservation Service.

**dd. Geologic Hazards.** An assessment of the geologic hazards on the parcel and a plan for mitigating geologic hazards.

**ee. Cultural Assessment.** A cultural, historical, and archeological survey of the parcel prepared by a qualified professional.

**ff. Wildfire Hazards.** An assessment of wildfire hazards, and a plan for mitigating wildfire hazards.

**gg. Emergency Response Plan.** An emergency response plan that addresses fire protection and hazardous spills, including the name and contact information for the applicant’s incident commander, proposed signage, access/evacuation routes, and health care facilities anticipated to be used. The plan shall include a provision for reimbursement of appropriate emergency response service providers for all costs incurred in connection with the emergency.

**hh. Security Plan.** Plans for maintaining the physical security of the site.

**ii. Noxious Odor Suppression and Abatement Plan.** A site-specific plan to prevent and/or abate offensive odors emanating from the proposed oil and gas operations which adversely impact adjacent land owners and/or the community.

**jj. Dust Suppression and Air Quality Control Plan.** A site-specific Fugitive Dust Control Plan to minimize, suppress, control, and mitigate the generation and/or spread of dust emanating during access to or from the proposed oil and gas operations, and that demonstrates compliance with all applicable air quality regulations.

**kk. Technical Infeasibility Waiver.** Documentation of the basis for any Technical Infeasibility Waiver from the standards or requirements specified in Land Use Code Sec. 4-30-20(h)(5) that the applicant may request.

**II. Fugitive Emission/VOC Pooling Assessment and Monitoring Plan.** An assessment of topographic features within the project area and adjacent areas where fugitive emissions and VOCs may pool and concentrate and a monitoring plan detailing how air emissions, including VOCs will be monitored and mitigated in these areas, as well as around pits and near other facilities.

**mm. Water Quality Sampling Plan.** The sampling plan shall detail sampling procedures, target constituents, sampling duration and schedule, sampling locations, and the name and address of the party contracted to perform sampling and assurance of their expertise in the field. The sampling plan shall include quality assurance measures (precision, accuracy, representativeness, comparability, and completeness); sample custody details (including: numbering and labeling procedures, as well as chain of custody and sealing procedures); calibration procedures and preventative maintenance; analytical procedures (including: sampling containers, preservatives, and laboratory reporting limits); data reduction, validation, and reporting; internal quality control measures; data assessment procedures; and corrective action procedures.

**nn. Health Impact Assessment.** An analysis of the potential health impacts of the oil and gas operation may be required.