

**Docket DC-16-0004: Amendments to
Oil and Gas Development Regulations:**

**Public Hearing to consider proposed Land Use Code
amendments addressing oil and gas development within
the Boulder County Land Use Code**

Board of County Commissioners

March 14, 2017

2:00 p.m.

Today's Agenda - March 14

I. County staff presentation

II. Board of County Commissioners questions to staff

III. Public comment

- 3-minute allowance per individual speaker
- Up to 10 minutes maximum for pooled time

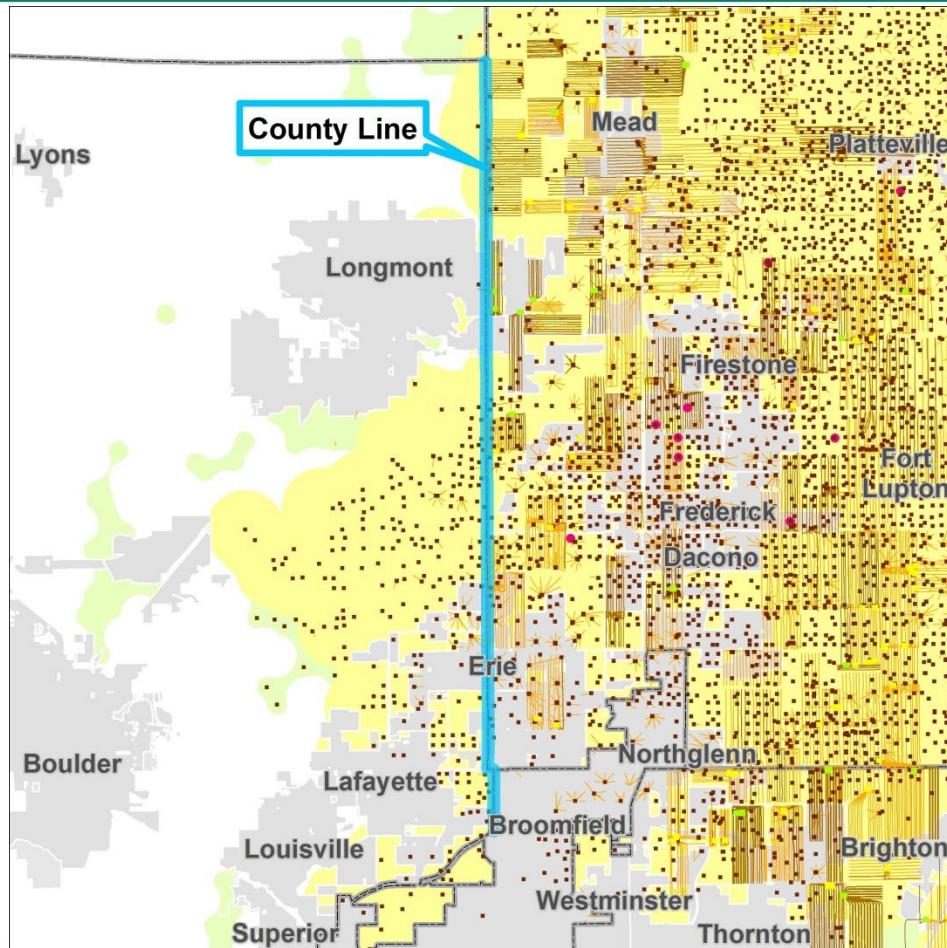
Public Review of Proposed Regulations

Previous meetings

- ✓ **Wednesday, Oct. 12** Planning Commission public hearing
- ✓ **Thursday, Oct. 27** Planning Commission public meeting
- ✓ **Tuesday, Nov. 15** Board of County Commissioners public hearing
- ✓ **Thursday, Nov. 17** Board of County Commissioners public meeting

Board of County Commissioners

- **Tuesday, Mar. 14, 2 p.m.** Board of County Commissioners public **hearing**
- **Thursday, Mar. 23, 2 p.m.** Board of County Commissioners public **meeting**



Legend

- Producing Wells
- State Permitted Sites
- State Permit In Process
- Active Pit Facility
- Directional Well Line
- Pending Directional Well Line
- Wattenberg Gas Field
- Other Oil/Gas Field

Source: COGCC GIS Data

Background

- Boulder County enacted a moratorium in February 2012
- Planning Commission adopts BCCP amendments in August 2012
- New regulations adopted in December 2012, amended May 2013
- Transportation impact fees adopted in May 2013
- In November 2014 the moratorium was extended to July 1, 2018

CO Supreme Court Decisions

- In May 2016 two CO Supreme Court decisions overturned efforts to limit hydraulic fracturing
 - *City of Longmont v. Colo. Oil and Gas Ass'n* – fracking ban
 - *City of Fort Collins v. Colo. Oil and Gas Ass'n* – 5-year moratorium
- In light of these decisions, the BOCC voted to terminate the temporary moratorium through July 2018 and establish a new moratorium until May 1, 2016 in order to update the regulations adopted in 2012 and prepare for their successful implementation

Recent Moratorium & Current Update

- Regulations adopted in 2012 needed updating to address:
 - ✓ Changed conditions and more recent industry practices
 - ✓ Shift toward large-scale and consolidated facilities
 - ❖ Broomfield proposals
 - ✓ Concerns with intensity of oil & gas development
 - ✓ Additional information about impacts
 - ✓ Rulemakings at the State level
 - ✓ Concerns with impacts on community and environment

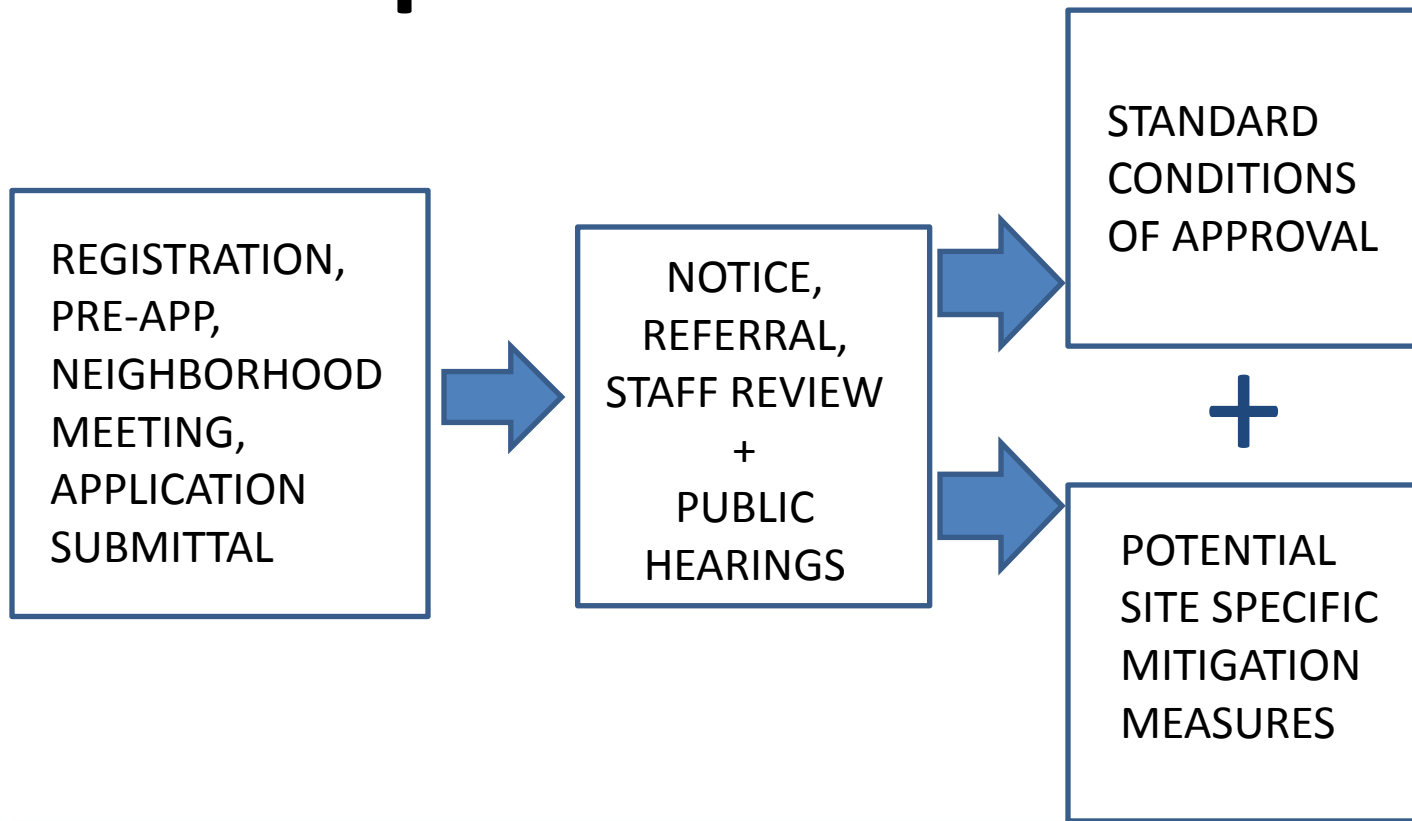
CO Attorney General Lawsuit

- On February 14, 2017, the Colorado Attorney General filed a suit against the County challenging the validity of the County's prior moratorium and current moratorium
- On February 25, 2017, the Colorado Oil and Gas Association and the American Petroleum Institute joined the lawsuit as plaintiffs against the County
- The County is defending the lawsuit and the moratorium because we believe we are consistent with the CO Supreme Court decisions

OVERVIEW - Proposed Regulations

- The proposed regulations employ our **local land use authority** to **protect** public health and the environment
- Close **scrutiny** of oil and gas development through Special Use Review
- Multiple opportunities for **public input** prior to any decision
- Consideration of **site-specific circumstances** related to each application
- Avoidance, Minimization, and **Mitigation Measures** customized to address specific circumstances
- Implementation of **conditions of approval**

Special Review Process



Application Submittal Requirements(12-500)

Applicants must submit detailed information on the proposal, including:

- Siting plan showing location of proposed wells and associated facility
- Plan showing existing structures within one (1) mile from the operation
- Map showing other wells and oil and gas operations within one (1) mile of the proposed site
- Analysis of at least three (3) alternative site locations
- Air quality plan + Water quality plan
- Emergency preparedness and response plan
- Mitigation plans for impacts on agricultural land, land disturbance, cultural and historic resources, geologic hazard, natural resources, and scenic attributes and rural character
- Wetlands protection plan
- Operations Plan, including schedule and duration of time for phases of activity
- Surrounding land uses and potential impacts
- Transportation route and traffic plan
- Water Quality Plan
- Water supply and quantity needed for all phases of the operation
- Offsite transport plan for water and the retrieved resource, including options for both pipelines and vehicles
- Site electrification information
- Waste disposal plan

Review Process/Public Involvement (12-400)

- **Pre-application conference**, which may involve a site visit to begin to identify potential site-specific concerns
- **Neighborhood meeting** with adjacent and surrounding landowners and other interested parties
 - Must occur at least 20 days after the pre-application conference + 14-day notice
 - An application cannot be submitted for 20 days following the neighborhood meeting and must include summary from meeting
- **“Waitlist,” Application Submittal, and Completeness determination** – 45 days
- **Notice to landowners and owners of water wells and to residents (physical address)** within ½-mile prior to application submittal and again before drilling commencement
- Public notice **signage**
- **Referrals** to county departments, fire district, County Sheriff, adjacent municipalities, school district and any necessary technical consultants
- **Planning Commission and Board of County Commissioners public hearings**
- If the proposed well is on or near county open space, **Parks and Open Space Advisory Committee (POSAC) review** may be required

Review Standards (12-600)

17 special review standards to evaluate the impacts and of the proposed operation and minimize potential land use conflicts:

- Adequate water supply
- Agricultural land
- Air Quality
- Cultural and Historic resources
- Emergency Prevention and Response
- Floodplains and Floodways
- Geologic Hazard Areas
- Land disturbance
- Natural Resources
- Odor
- Pipelines (Art. 4-514.E) and tandem application and review for new or modified pipelines
- Recreational Activity
- Scenic Attributes and Rural Character
- Surrounding Land Uses
- Transportation, Roads, and Access
- Water quality
- Wetlands Protection

Conditions of Approval (12-700)

Board of County Commissioners may impose specific conditions of approval to ensure compliance with the review standards:

- Access
- Anchoring
- Applications and permits
- Certification of compliance with State and/or County testing and monitoring requirements
- Color
- Secure discharge valves
- Dust Suppression and Fugitive Dust
- Emergency Preparedness Plan – updated annually
- Exhaust venting
- Fire hazards
- Flare and combustion devices design and operation
- Hydrocarbon Emissions Leak Detection & Repair (LDAR) program / prompt repair of leaks
- Lighting
- Maintenance of a daily log
- Maintenance of machinery
- Noise – compliance with State levels
- Notice 30 days prior to commencement of drilling
- Performance guarantee / letter of credit
- Interim and final Reclamation procedures required by COGCC
- Removal of debris
- Removal of equipment within 30 days of completion of work
- Representations
- Spills and leak reporting and clean-up
- Stormwater control
- Temporary Access Roads reclamation / revegetation
- Transportation Fees
- Transportation Infrastructure improvements / costs
- Transportation Permits
- Baseline Vegetation analysis
- Vehicle Tracking Control practices
- Water Quality
- Weed Control
- Well Abandonment or Decommissioning

Potential Site Specific Mitigation Measures (12-701)

Application of potential mitigation measures:

- Air Quality / Hydrocarbon emissions control measures
 - Electrification from the power grid or from renewable sources and/or quiet design mufflers
 - Pipelines / limitations on truck traffic
 - “Tankless” production techniques
 - Environmentally sensitive and efficient production techniques
 - Hydrocarbon and emissions controls
 - Closed loop pitless systems
 - A leak detection and repair program, using infra-red cameras for equipment used on the well site
 - Continuous ambient air quality monitoring to measure hydrocarbon emissions and meteorological data
- Water Quality Monitoring and Well Testing
- Water Source Sampling and Testing
- Conditions of approval that will reduce impacts to the site/area/resources, including change in location, reduction of the number of wells, adjustment of pad dimensions, use of shared infrastructure, visual buffering/landscaping, etc.
- Disruption payments to surrounding occupants of residential structures who are affected by drilling activities
- Remote monitoring

Pipelines (4-514)

- Oil and gas pipelines also require Special Review:
 - Lines that are part of new oil and gas development and are included in the Special Review for the proposed facility
 - Pipelines that are proposed offsite require a separate Special Review application that must be processed in tandem with the Special Review for the facility with which they are associated
 - In this case, pipeline approval is conditioned upon approval of the oil and gas operation
- New water and wastewater transmission lines or pipelines require review:
 - Special Review = Permanent water and wastewater transmission lines
 - Limited Impact Special Review = Temporary above-ground pipelines

Compliance (12-700), Right to Enter (12-900), and Enforcement (12-1000)

- Certification and reporting throughout the oil and gas development process are required
- Any site under an approved Special Review may be inspected by the County, in coordination with the operator, at any time to ensure compliance with the requirements
- The Director may issue a written order to the operator suspending the Special Use and all activity allowed if there are violations
- Director shall provide written notice to the Applicant describing the violation, and stating a reasonable time within which the violation must be corrected

Water & Waste Disposal/Injection Wells

- Injection wells are now proposed to be prohibited in all zoning districts (previously allowed in GI zoning)
- Disposal plans for wastewater and other projected waste from the site are required

Nov 2016 BOCC Direction

- Staff presented the Draft Regulations at a BOCC public hearing on November 15, 2016
 - Public Testimony was taken
- **The **Revised** Draft Regulations presented today reflect direction given to staff by the BOCC in November 2016**

Financial Viability of Operators

- Edits made to Section 12-200 to support public nuisance claims
- Edit made to Section 12-400(B)(4)(a) to require operators to provide a list of prior violations within the last 10 years, showing past performance
- Edits made to Section 12-400(B)(4)(b) requiring copies of financial assurances filed with COGCC be provided to the County so County can ensure operator compliance with State bonding requirements
- Edit made to Section 12-400(B)(4)(c) to require proof of \$1 million general liability insurance
- Section 12-400(B)(5) added to require operators and their successors to register with the County
- Performance guarantee under 12-700(R)

Water Testing Requirements

- Numerous modifications to water source testing requirements in Section 12-701(B)(2), including periodic post-completion testing post-stimulation testing up to one mile up-gradient and down-gradient of a well
- Edits made to Section 12-701(B)(2)(b) to require baseline sampling of all water sources within an increased distance of $\frac{1}{2}$ mile (vs. $\frac{1}{4}$ mile) of radius of the projected track of the borehole and proposed well or multi-well site
- Additional analytes added to Table 1 based on EDF recommendations
- “Water source” definition added in Section 12-1400

Soil Testing

- Edits made to Section 12-701(C)(12) to include an optional condition of approval requiring contamination-based soil testing and remediation
- Soil testing is performed in the event of a known spill and soil contamination will be apparent from the test results

Yale Study and new EPA report

- Edits made to Section 12-701(B)(1) and (2) including an optional condition of approval banning orally toxic chemicals in fracking fluids
- Follow-up testing requirements that could require testing for additional chemical components if BTEX is detected

Water Stewardship

- Waterless Fracking explored but not included because its use of chemicals to replace water is not a preferable alternative
- Closed loop pitless systems in Section 701(A)(q), which allows for recycling of all fluids including water
- Water Supply Plan required per Section 12-500(Q)
 - Estimate of the amount of water needed for all phases of the operation, the amount of wastewater produced, and disposal plans for wastewater
 - List of all available physical sources of water and which is least detrimental to the environment
 - Water conservation measures

Wastewater Handling

- Edits made to Section 4-506(D)(1) to prohibit spreading produced water, fracking fluid, and flowback water on roads in unincorporated Boulder County

Inspections and Monitoring

- Edits made to Section 17-300(E) to recover costs for zoning enforcement in general, as well as charge for follow-up inspections on violations
- Remote monitoring
- Reporting of testing and monitoring

Disruption Payments

- Edits made to Section 12-701(C)(3)
- Creation of disruption payment appendices
- \$ = the cost of equivalent rental unit x the duration of construction and drilling, plus the cost to move away and back

$$\begin{array}{r} \text{Table A} \quad \times \text{Number of Months} \\ + \text{Table B} = \\ \hline \$ \text{ Total Disruption Payment} \end{array}$$

Disruption Payments

Table A Rent Equivalencies

Distance From well (ft)	House/Unit Size						
	Efficiency	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom	5 Bedroom	6 bedroom
1-1320	\$905	\$1,021	\$1,240	\$1,763	\$2,065	\$2,374.75	\$2,684.50
1321 to 2640	\$452.50	\$510.50	\$620.00	\$881.50	\$1,032.50	\$1,187.38	\$1,342.25
2671 to 5280	\$90.5	\$102.1	\$124.0	\$176.3	\$206.5	\$237.5	\$268.5

Rents shown are for 2017

Rent Equivalencies for units/houses within 1 to 1320 feet of the well are valued at the Fair Market Rent as set by HUD for the year of disruption.

Distance from well is as defined in COGCC regulation 604(a) concerning Setbacks

Disruption Payments

Table B Moving Equivalencies

Distance From well	Rate
1-1320	\$2,300
1320 to 2640	\$1,150.0
2641 to 5280	\$230.0

Moving equivalencies shown above are for 2017. Each year starting in 2018 these rates shall be adjusted by the Consumer Price Index as set by the United States Department of Labor, Bureau of Labor Statistics for Denver-Boulder, all items, all urban consumers, or its successor index.

Pipelines

- Substantial changes were made to all pipeline sections
- Amendments are designed to address safety and limit impacts
 - Address siting and setbacks, certain construction requirements, record-keeping, inspection, monitoring, testing, maintenance and abandonment
 - Setbacks will generally be determined on a case-by-case basis, but presumption is a **setback of at least 150'** outside the well pad
 - Option of requiring a risk-based engineering study to determine the appropriate setback where the type of pipeline or proposed sites pose particular hazards

Emergencies / Fire Hazards

- Ten day notification replaced with 24-hour notification for every situation:
 - Odor
 - Spill, failure, accident, natural event
 - Hydrocarbon spills and releases
 - Pipeline spills and test failures
- Edits made to Section 12-700(I) to include a condition of approval requiring compliance with any Fire Code adopted by the applicable fire district

Dust Handling

- Edit made to Section 12-700(G) to require covered storage for sand and silica
- Technology has changed and “Sandbox” where sand is fully contained is a standard practice for Industry



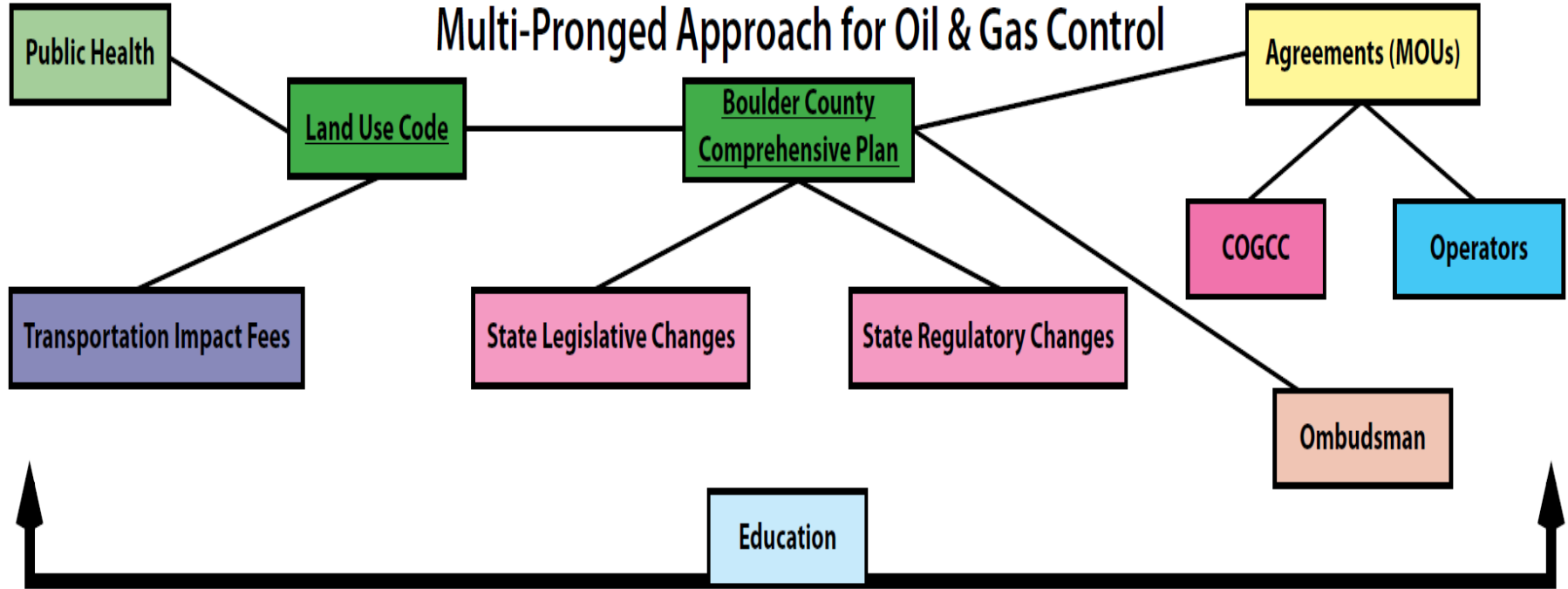
Maintenance and Repairs

- Written notice and detailed description in advance of the maintenance or repair
- Notice within 24-hours of commencement of emergency repairs
- Activity may be approved, conditionally approved, or require substantial modification determination
- List of exempt maintenance and repair activities will be developed by the County

Other

- Edit made to Section 12-600(J) to reference AQCC and COGCC requirements
- Video recording of required neighborhood meeting
- Minor changes, clarifications, and clerical corrections

Multi-Pronged Approach for Oil & Gas Control



Multi-pronged Approach

- Changes to state and federal legislation
- Changes to COGCC rules
- Changes to state AQCC rules
- Statewide Ballot Initiatives

Other Efforts

- Baseline Air Quality Monitoring Study
- Baseline Water Quality Monitoring Proposal
- Transportation Impact Fee Update
- Special Use Review, Permitting, and Inspection Fees
- Climate Change Impacts

Public Comments

Comments were emailed to oilgascomment@bouldercounty.org

All comments are posted on the County's Oil and Gas website:
<http://www.bouldercounty.org/dept/landuse/pages/oilgas.aspx>

There are five links under “Recent Public Comments” on that page, including:

- 1) Public comments received in 2017

BOCC Action Requested

Following today's staff presentation, staff requests the BOCC:

- Ask questions of staff
- Take public testimony

Next public meeting is on March 23 at 2 p.m.

- BOCC discussion
- Consider whether to adopt the Draft Regulations

Recommendation

- County's objective is to **protect public health, safety, welfare, and the environment to the maximum extent** permitted by law
- Draft Regulations are intended to **reduce incompatibility** and **minimize potential land use conflicts** between oil and gas operations and surrounding land uses

The proposed Land Use Code amendments meet the criteria in Art. 16-100 of the Land Use Code. Staff recommends that the Board of County Commissioners

APPROVE

Docket DC-16-0004 Amendments to Oil and Gas Development Regulations.

