

Boulder County Land Use Department



**Board of County Commissioners /
Planning Commission
Special Session
June 5, 2013**

BOCC / PC Special Session

Docket DC-12-0003: Amendments to Oil and Gas Development Regulations

Public Hearing for the Board of County Commissioners and Planning Commission to consider proposed amendments to Article 12 of the Boulder County Land Use Code (oil and gas regulations), to include a phasing program for Development Plan Review applications or permits.

***Action Requested (by Planning Commission only):
Recommendation to the Board of County Commissioners***

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Today's Agenda

1. COUNTY STAFF PRESENTATION

- a. Proposed text amendments to Art. 12 of the Land Use Code - Kim Sanchez, Land Use Dept./Jeff Robbins, Outside Counsel
- b. Inspection and monitoring options - Pam Milmoe, Boulder County Public Health

2. Q&A

3. PUBLIC COMMENT REGARDING PROPOSED REGULATIONS (3-min allowance per individual speaker*)

*Time may be pooled (up to 12 minutes maximum) provided all individuals who are donating time are present.

4. PLANNING COMMISSION DELIBERATION / RECOMMENDATION TO THE COUNTY COMMISSIONERS (County Commissioners will be excused)

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Thursday, June 6 at 3:30 p.m.

After receiving Planning Commission's recommendation tonight, the **BOARD OF COUNTY COMMISSIONERS** will hold a public meeting to take action on the proposed amendments on June 6, 2013 at 3:30 p.m.

The opportunity to provide public testimony is tonight (June 5, 2013).

No additional public testimony will be taken on June 6.

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Background and Goal

- **Goal** = Provide the maximum protection possible for local public health, safety, and welfare under current state and federal law
- 15-month public process, including 22 public meetings, hearings and open houses
 - ✓ Comprehensive Plan revised in August 2012
 - ✓ New regulations adopted in December 2013

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New Oil & Gas Regulations

Standard DPR Process

- Pre-application conference
- Notice within ½ mile
- **Applicant Neighborhood Meeting**
- **PC + BOCC Public Hearings**
- Mitigation plans / review standards involving the siting of wells to address land use issues such as:
 - Agricultural Land Mitigation
 - Surrounding Land Uses
 - Emergency Preparedness
 - Transportation System Impacts
 - Air Quality Provisions
 - Water Quality
 - Geologic hazards
 - Natural resources
 - Recreational activities
 - Scenic Attributes & Rural Character
 - Cultural and Historic Resources
 - Wetlands Protection

Expedited DPR Process:

- Pre-application conference
- Notice within ½ mile
- Must meet well siting provisions to qualify:
 - New well pads:
 - 1000 ft from occupied structures +
 - 500 ft from surface water bodies +
 - 500 ft from water wells
 - Existing well pads:
 - 500 ft from occupied structures +
 - 300 ft from water bodies +
 - 500 ft from water wells
 - Not in subdivision or townsite
 - Not in high hazard geologic area, floodway, or BCCP natural resource and critical wildlife habitat areas
- **Air Quality Provisions (more expansive)**
- **Water quality monitoring and well testing**
- 45-day Administrative Review after 10-day Completeness Review of application

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Transportation Impact Fee

- Fellsberg, Holt, & Ullevig/BBC Research & Consulting Oil & Gas Roadway Impact Study
- On May 16, Board voted unanimously to adopt an impact fee in the amount of \$37,900 per well



On-going Concerns Raised by BOCC

- **Cumulative effects** of increased oil and gas development on land, surrounding land uses, public facilities and services, water, and air
- **Unknown risks** of increased oil and gas development on **public health, safety, and welfare**- the need for more data on impacts of oil and gas development on Boulder County residents and areas
- **Inspection and enforcement program**- the need to maximize the use of limited resources available for inspections
- **Administrative needs and concerns**- the concern regarding County staffing and resources necessary to review and inspect



Recent Developments

May 16: County Commissioners took comment from the public on any issues related to oil and gas development

May 21: Commissioners shared their thoughts, concerns and ideas, and ultimately directed staff (by 3-0 vote) to pursue the idea of permitting oil & gas development (new applications) in a *phased manner* once the moratorium expires on June 10.

- A phased approach to oil and gas development would temper the pace of new development, which would in turn allow the County to carefully monitor the initially approved wells.



Purposes for Phasing

- **Protect public health and safety** by controlling the pace of, and land use impacts associated with, new oil and gas development
- Ensure appropriate **systems and staff** are in place to **process and inspect** new oil and gas operations
- Allow the County to **review the effectiveness** of its new regulations
- Confirm that the available **capacity of existing public facilities** is not exceeded
- Allow for the **orderly provision of public services**, including emergency response functions



Purposes for Phasing (cont.)

- Allow adequate time to further review, research and understand potential impacts and risks associated with hydraulic fracturing
- Allow for study of Boulder County wells where impacts are observed and scientifically studied, including air and water impacts
- Allow for full implementation of recently completed and still ongoing state and federal rulemaking (AQCC, EPA, etc.) which rules are anticipated to mandate greater protections



Trends and Expectations (cont.)

Difficult to predict drilling activity with any accuracy but can examine COGCC data, Boulder County trends, and Industry's own information

COGCC data 2003-2012 (www.cogcc.state.co.us/)

- Ave. wells permitted per year= 17 wells
- Annual totals ranged from 6 to 29 wells
- Cumulative total over the last decade= 173 wells

Fellsberg, Holt, & Ullevig/BBC Research & Consulting

- Estimated a “drill out” period of 16 years with a cumulative total of 609 wells
- Average of 38 wells per year over that period



Trends and Expectations

- Practice of horizontal and directional drilling is also on the increase

Weld County horizontal wells:

Year	Number Wells
2008	3
2009	7
2010	76
2011	300
2012	888

www.cogcc.state.co.us/

- Notices received (2010-2013) for potential wells on BoCo open space are for horizontal and directional drilled wells
- To date, the County has only approved (under our former regulations):
 - One (1) horizontal well, which was not drilled (pulled off Noble's drilling schedule)
 - 5 directional wells drilled on County open space

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Trends and Expectations (cont.)

- Currently there are 35 proposed wells on 8 sites in uninc. Boulder County for which the COGCC has issued Approved Drilling Permits (APDs)
 - 34 directional wells
 - 1 horizontal well
- APDs expire after 2 years

www.cogcc.state.co.us/

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Trends and Expectations (cont.)

- Noble Energy (active in Weld County and one of the two primary operators with substantial holdings in BoCo) states: <http://www.nobleenergyinc.com>

“We drilled approximately 85 horizontal Niobrara wells in 2011; drilled approximately 200 horizontal wells in 2012; and plan to drill approximately 300 horizontal wells in 2013. We are focused on further accelerating the development of Wattenberg and continue to test the exploration opportunities in northern Colorado and southern Wyoming.”
- Noble planning on accelerating development and drilling 500 wells per year in 2016
- Can expect similar pressures in Boulder County portion of the Wattenberg field



Proposed “Phasing Plan”

- Phasing plan would control the number of applications per operator that can be processed at any given time over the initial 24 month period after the moratorium expires on June 10th
 - County staff would process one oil and gas facility at a time per operator
 - Applications could be either STD DPR or EXP DPR
 - 2 primary operators in Boulder County (Encana and Noble)



Proposed “Phasing Plan” (Art. 12-400)

12-400 General Application Procedure for Expedited DPR and Standard DPR

- C. Phased Process. During the initial two year period following the effective date of these regulations (“Phasing Period”), new oil and gas facilities will be processed pursuant to the provisions of this paragraph. Prior to submitting a development plan review application, each operator shall register with the County land use department on the operator registration form. During the Phasing Period, the County will process one development plan review application at a time for each registered operator. The development plan review application may be expedited or standard and may be for a single proposed well or for a well pad with multiple proposed wells, in the discretion of the operator. After receipt of an application from a registered operator, the County will not accept additional applications from that operator until the processing of the current application is completed.



Oil and Gas Facility (Art. 12-1400)

12-1400 Definitions

Terms used in this Article 12 are defined below. Any terms not specifically defined for purposes of Article 12 may be defined in Article 18.

Oil and Gas Facilities.

The site and associated equipment used for the production, transportation, treatment, and/or storage of oil and gas and waste products; or

An individual well pad built with one or more wells and operated to produce liquid petroleum and/or natural gas, including associated equipment required for such production; or

Gathering lines, and ancillary equipment including but not limited to drip stations, vent stations, pigging facilities, chemical injection stations and valve boxes; or

Temporary storage and construction staging yards in place for less than six months; or

Any other oil and gas operation which may cause significant degradation.

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Inspection & Monitoring Program

- Commissioners also requested an **inspection and monitoring program** of air and groundwater
- Boulder County Public Health staff will present some possibilities to consider including:
 - 1) **Increasing inspection capacity**
 - 2) **Collecting air and water quality sampling data to identify potential health risks**
 - 3) **Conducting and participating in more studies**



Public Health Inspection Capacity

- Build current staff capacity and expertise
- Local staffing support during phasing period
- Expertise we would seek:
 - Engineering
 - Environmental Health - Air and Water Quality
 - Public Health
 - Oil and gas expertise

Sample Job Duties (Attachment C)

- Inspections of permitted operations
- Permit application review
- Respond to complaints
- Proactive research of risk areas for air and water

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Air Quality Sampling

Assess VOCs and Particulate Matter and Develop Cost-Efficient Techniques

- Collect air quality samples to facilitate assessing air quality impacts of oil and gas operations in Boulder County.
 - Focus on the emissions of volatile organic compounds (VOC) and of particulate matter.
- Evaluate and cost effective passive sampling devices to support future monitoring efforts.
- Proposal: 10 days of sampling at 6 sites over 24 months.
- Proposal already in design in partnership with the University of Colorado and other partners.
- Could begin in six months and conclude with a final report in 24 months.

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Water Quality Sampling

- Provide service for a third party to collect baseline samples from water wells within $\frac{1}{4}$ mile of the borehole.
 - This is already required under the Expedited DPR process, but could be added to Standard DPR



Air Quality Studies

Exposure Assessment Study

- Conduct sampling at various distances from oil and gas sources
 - Potentially, during different phases of well drilling, completion, and production.
- Combine with epidemiological study to assess currently affected populations at various distances from a drill or production site
- Discussions currently underway with CU and Colorado School of Public Health that could be channeled in this direction
- Additional investigation and collaboration necessary to determine feasibility, cost, and timeline.

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Air Quality Studies

Support Front Range Air Pollution and Photochemistry Experiment (FRAPPÉ)

- Proposed NASA Discover and NCAR flyover studies summer 2014
- Satellite and upper atmosphere air quality measurements
 - Air quality forecasts, pollutant source identification, emission fluctuation
- Unprecedented, comprehensive and unique data set
- Advance understanding of emission sources, photochemical processes, small and regional scale transport, and boundary layer development
- Evaluate and improve modeling that supports compliance with federal air quality standards

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Text Amendment Criteria Review

Pursuant to Article 16-100 of the Land Use Code, staff finds that:

- the existing text is in need of the amendment;
- the amendments are not contrary to the intent and purpose of this Code; and
- the amendments are in accordance with the *Boulder County Comprehensive Plan*.



PC Decision Points:

- Action on DC-12-0003: Amendments to Oil and Gas Development Regulations (proposed “phasing plan”)
 - Staff recommends that the Planning Commission **APPROVE** and **RECOMMEND TO THE BOARD OF COUNTY COMMISSIONERS APPROVAL OF DC-12-0003: Amendments to Oil and Gas Development Regulations**
- General feedback on Inspection & Monitoring



Q&A

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PUBLIC HEARING

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Planning Commission Discussion

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PC Decision Points:

- Action on DC-12-0003: Amendments to Oil and Gas Development Regulations (proposed “phasing plan”)
- General feedback on Inspection & Monitoring

