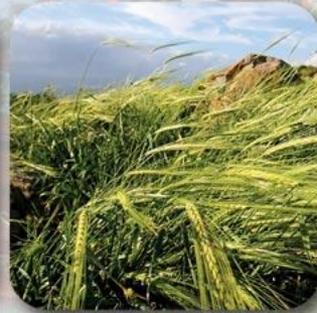


Boulder County Land Use Department



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

Public Hearing for the Board of County Commissioners to consider proposed Land Use Code amendments addressing oil and gas development within the Boulder County Land Use Code

November 13, 2012

4:00 p.m.

AGENDA

1. COUNTY STAFF PRESENTATION

- a. Kim Sanchez, Planning Manager
- b. Jeff Robbins, Outside Counsel on oil and gas issues
- c. Mike Matheson, Outside technical consultant

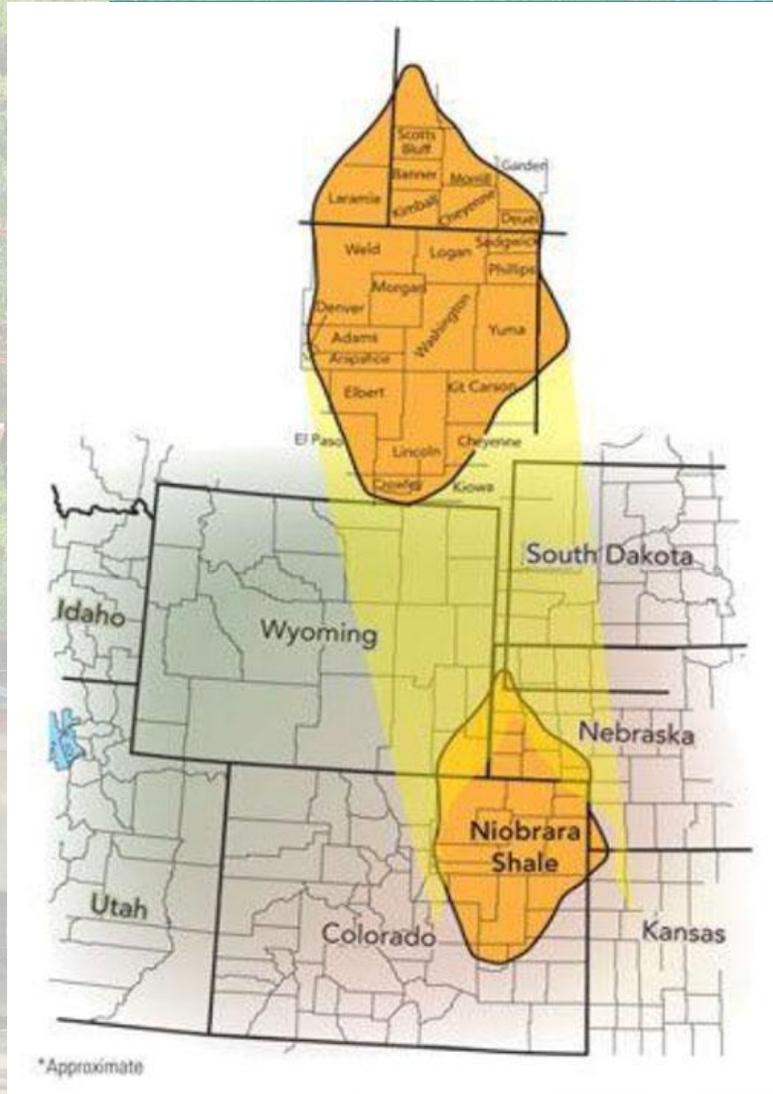
2. BOARD OF COUNTY COMMISSIONERS (BOCC) Q & A

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

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



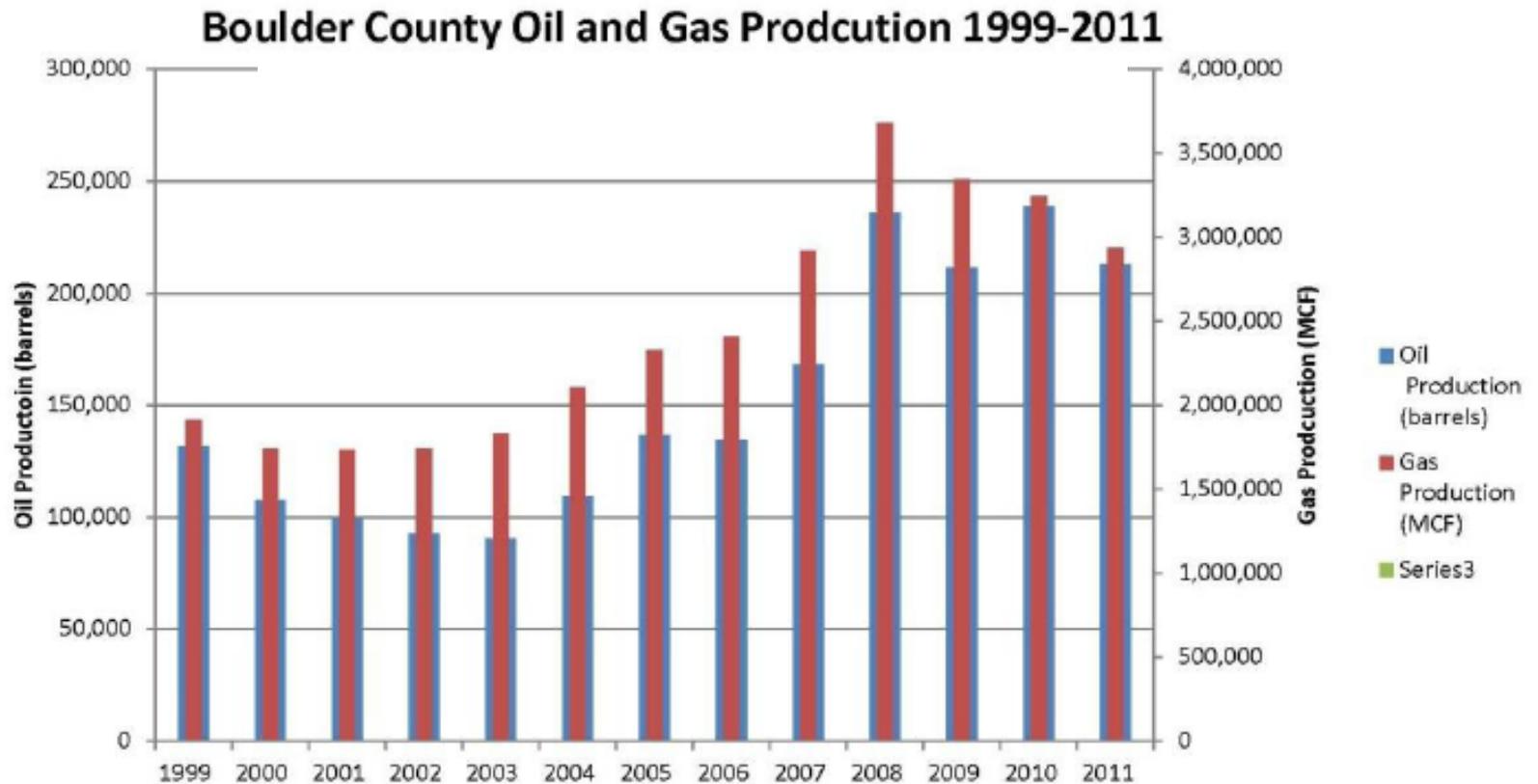
NIOBRARA FORMATION



Wattenberg Field



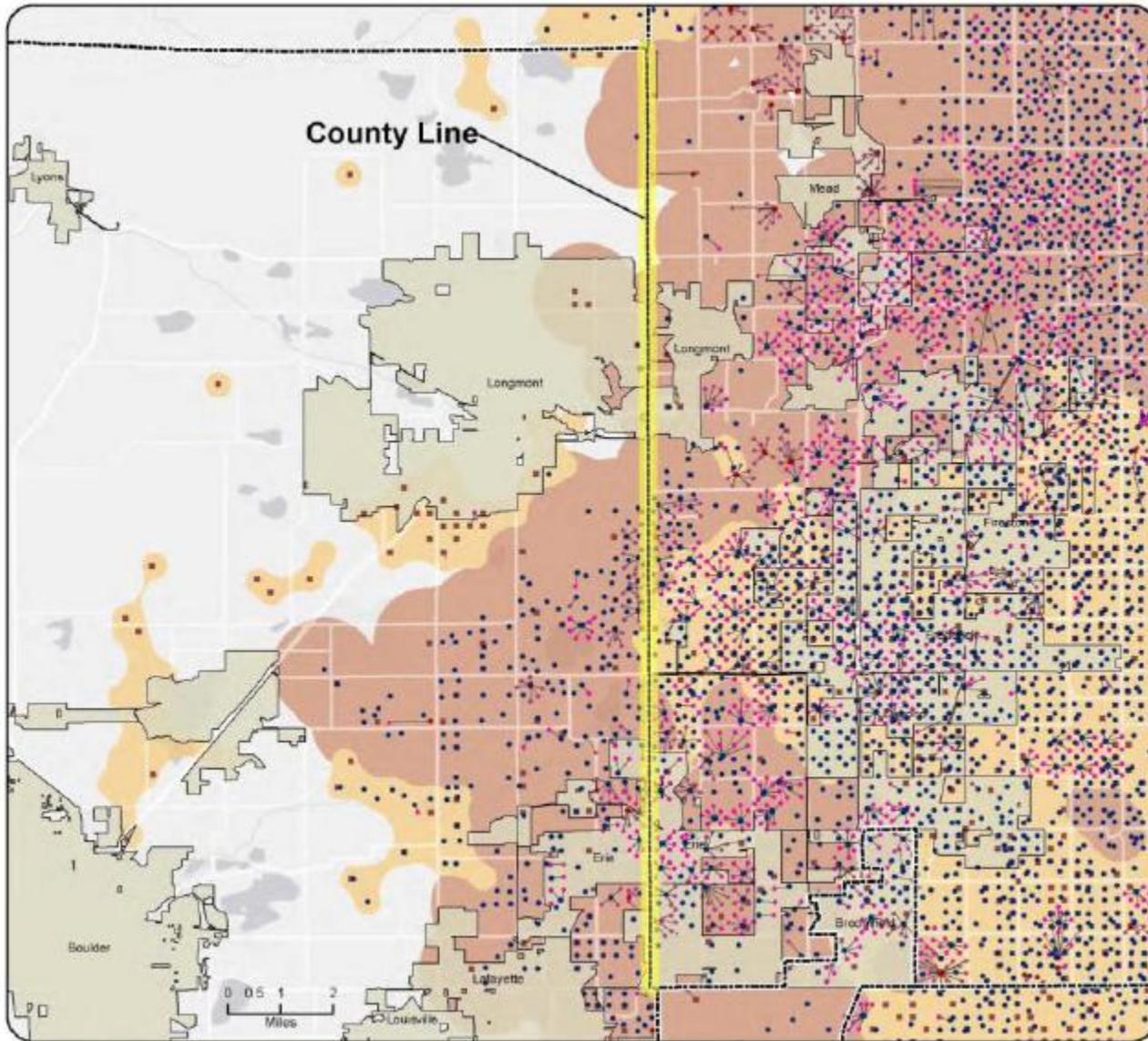
BOULDER COUNTY OIL & GAS PRODUCTION 1999-2011



Data from Colorado Oil and Gas Conservation Commission website - <http://cogcc.state.co.us/>

MCF= 1,000 cubic feet of natural gas





Colorado Oil and Gas Conservation Commission Wells: GIS Data Map

- Wells
- State Permitted Sites
- Pit Facility
- Directional Well Bottomhole: Actual
- Directional Well Bottomhole: Planned
- Directional Well Line
- Oil or Gas Field
- Wattenberg Gas Field



source:

<http://cogcc.state.co.us/>

Boulder County
Land Use Department



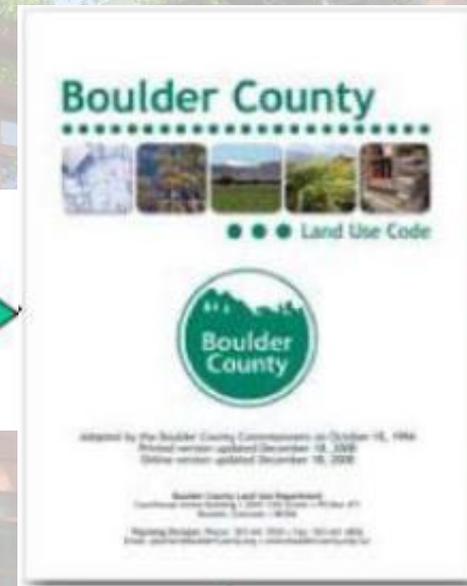
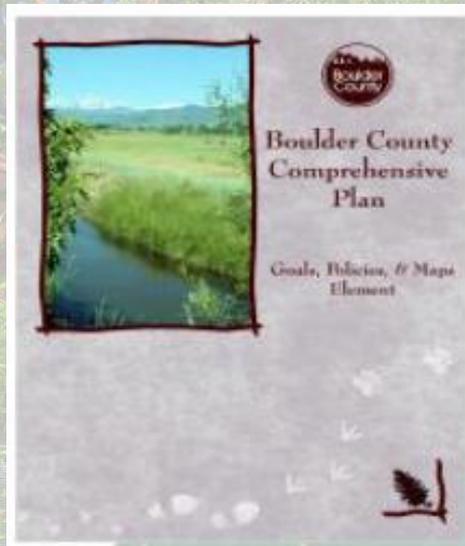
BACKGROUND / MORATORIUM

- **Feb. 2** – Temporary moratorium on the processing of the required development plans for local oil and gas permits under the Land Use Code adopted ([Resolution 2012-16](#))
- **March 1** – Public hearing for BOCC to hear staff presentations and public testimony
- **April 16** – Moratorium on processing of applications for oil and gas development in unincorporated parts of the county extended ([Resolution 2012-46](#))

Moratorium in effect until February 4, 2013



BOULDER COUNTY COMPREHENSIVE PLAN (BCCP)



- **May 16** – Planning Commission authorizes initiation of an amendment process to the oil & policies in the BCCP
- **May 31**– Open House for BCCP amendments.
- **June 20** – Planning Commission reviews proposed oil and gas policies amendments and takes public testimony
- **July 18** – Planning Commission further reviews proposed oil & gas policies amendments
- **Aug. 15** – Planning Commission adopts BCCP amendments



LAND USE CODE

PLANNING COMMISSION PUBLIC MEETINGS TO DATE

August 7 – Open House

August 22 – Joint Planning Commission/BOCC Study Session

Planning Commission Review of Proposed Regulations:

September 24 – Planning Commission Public Hearing

October 1 – Planning Commission follow-up meeting to provide direction to staff

October 17 – Planning Commission Public Hearing

October 30 – Planning Commission Public Meeting / Recommendation to BOCC

- **Planning Commission recommended approval of the Draft Regulations to the BOCC. Included in their recommendation were motions to 1) extend the moratorium for an additional 3-6 months, and 2) review the adopted regulations 6 months and 18 months after their effective date.**
- **Their other changes have been incorporated into the Draft Regulations under review.**



GOAL

The County's current DPR regulations have not been updated for nearly 20 years.

The Draft Regulations include the proposed creation of a new Article 12 of the Land Use Code (see Attachment A), as well as changes to Article 4 and other Code-conforming amendments as needed throughout the Code.

The proposed regulations are intended to:

- Address issues raised by the Planning Commission in its recent update of the BCCP policies applicable to oil and gas development;
- Reflect today's industry, its practices, and impacts on land use, transportation, public health, open space, and other environmental and natural resources across the County;
- Respond to public concerns and questions; and
- Provide the maximum protection possible for local public health, safety, and welfare under current state and federal law.



ANTICIPATED SCHEDULE & OPPORTUNITIES FOR INPUT

Board of County Commissioners Review of the Draft Regulations:

- **Thursday, November 15 at 9:00 AM** – *Follow-up meeting for BOCC discussion and direction to staff after tonight's public hearing. No public testimony will be taken.*
- **Tuesday, December 4 at 4:00 PM**– *The BOCC's second public hearing on the Draft Regulations. Public testimony will be taken.*
- **Thursday, December 13 at 4:00 PM** – *Anticipated adoption of the proposed regulations by the BOCC.*

Other meetings may be scheduled as necessary and will be posted on the County's oil and gas website at: <http://www.bouldercounty.org/dept/landuse/pages/oilgas.aspx>



OVERVIEW OF OIL & GAS DEVELOPMENT PROCESS

Boulder County
Land Use Department



OIL AND GAS DEVELOPMENT PROCESS

The oil and gas extraction industry can be classified into four major phases:

- (1) leasing / permitting,**
- (2) drilling & well completion (hydraulic fracturing)**
- (3) production**
- (4) decommissioning / site abandonment / reclamation**

* Hydraulic Fracturing is not new.

- According to COGA, over 90% of the wells drilled today are hydraulically-fractured
- Industry moving to horizontal drilling. Recent COGCC Report on water assumed that the number of horizontal drilled wells will increase at 20% a year (total wells will remain flat).



DRILLING PHASE (7-12 days per well)

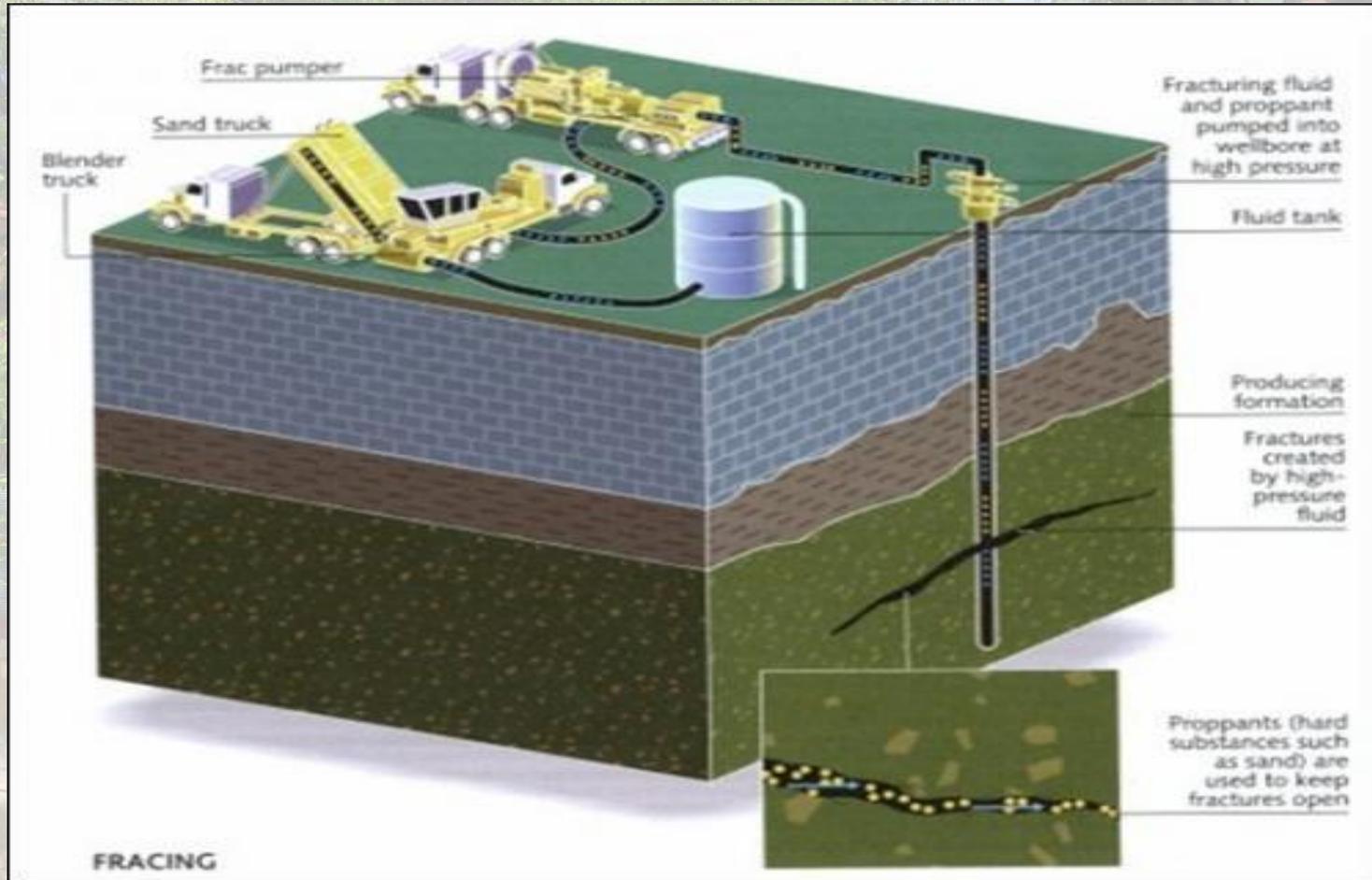




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HYDRAULIC FRACTURING



Graphic by Al Granberg

Source: Western Resource Advocates



FRAC JOB – WELL SITE

**FRAC FLOW
BACK TANK**

**SAND
MOVER**

**WATER
TANKS**

**CHEMICAL
TRUCKS**

**COMMAND
CENTER**

Source: http://cogcc.state.co.us/Announcements/Hot_Topics/Hydraulic_Fracturing/COGCC_FRACING_briefing_052011.pdf



FRACKING

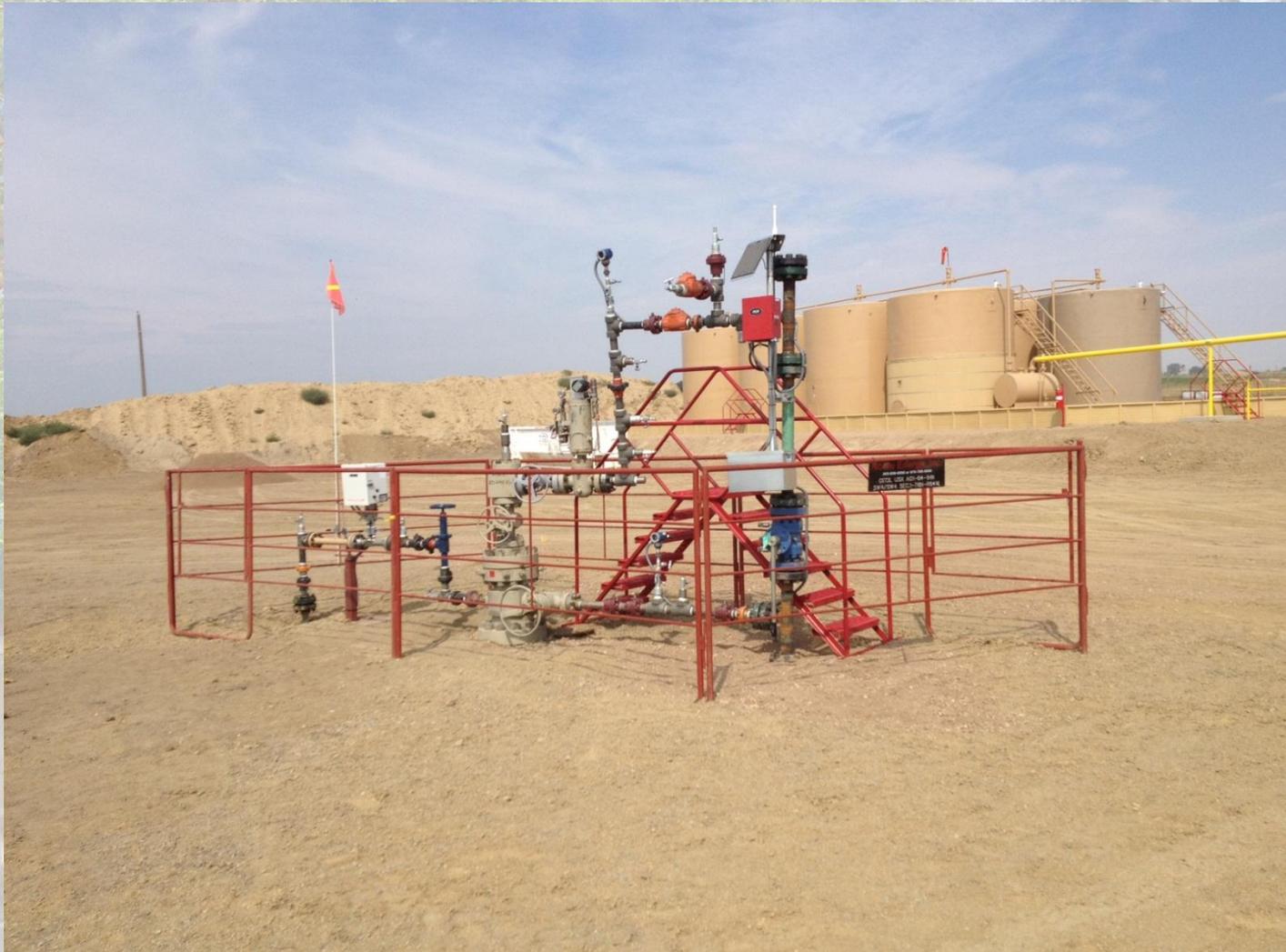


PRODUCTION



Production / pad site in early reclamation after drilling/completion.





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PRODUCTION



Erie Well site – production



Similar tank battery w/containment no fencing (wellhead is just out of the picture on the right)



INTERIM RECLAMATION



LOCAL IMPACTS AND CONCERNS

Identified by Staff and in Public Comment (emails, open houses, public testimony):

- Transportation Impacts to roads
- Impacts on environmental resources
 - Wildlife and plant habitat
 - Wetlands
 - Riparian areas
- Geologic hazards
- Storm water and drainage
- Noise and lighting
- Water quality impacts
- Air Quality – Methane emissions, Volatile Organic Compounds
- Land reclamation
- Agricultural land preservation
- Floodplain and Floodways
- Visual impacts and preservation of scenic views
- Operators responsibility to remove roads/facilities upon termination of the use.
- Historic/archeological/ cultural protection
- Spacing and setbacks



APPROACH FOR OIL & GAS DEVELOPMENT CONTROL

Boulder County
Land Use Department



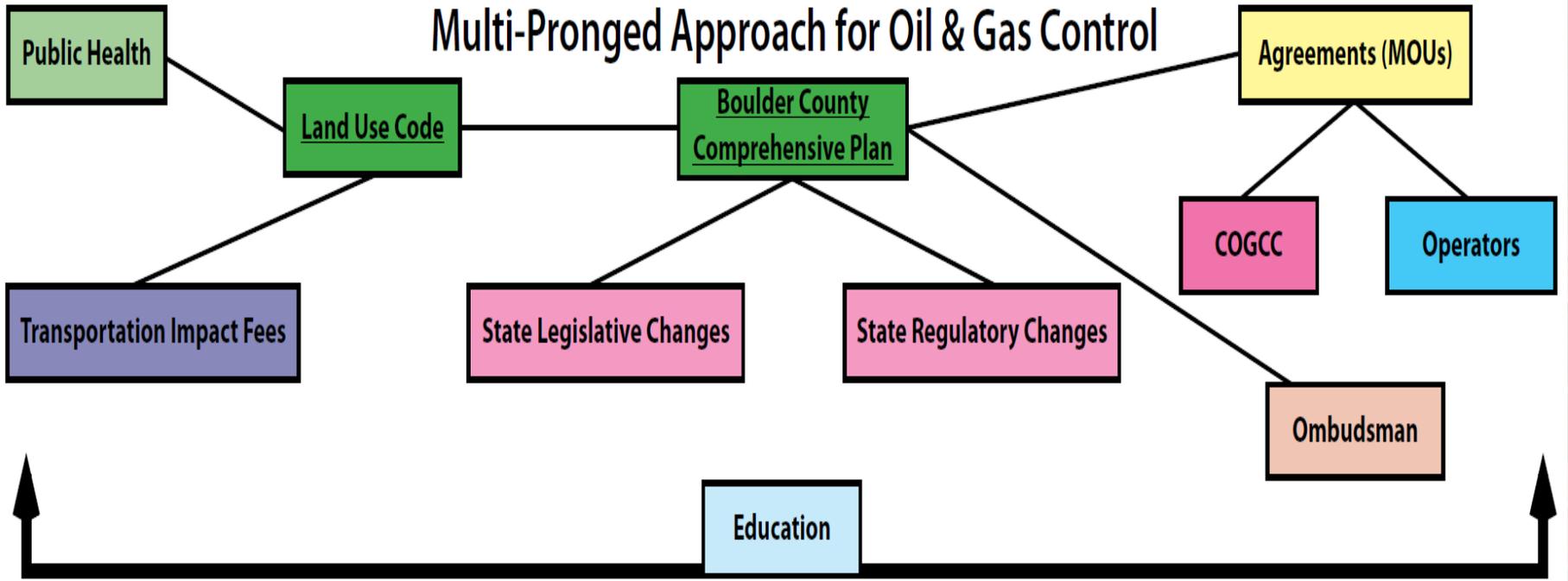
LAND USE AND COUNTY REGULATORY ISSUES

County's role in regulating oil and gas development:

- **Counties are subordinate governmental units of the state.** As such only have authority as determined by the state constitution and state statutes.
- Boulder County has express statutory authority to regulate the **land use aspects** of oil and gas operations
- The Colorado legislature has delegated authority to the Colorado Oil and Gas Conservation Commission (COGCC) to regulate the **“downhole”** aspects of oil and gas development.
- Under this established legal framework, the Colorado courts have consistently ruled that counties' land use authority coexists with COGCC authority to regulate the technical aspects of oil and gas operations.
- Under the Colorado Oil and Gas Conservation Act (“the State Act”) local regulations are considered valid as long as they do not create an **“operational conflict”** with the state's regulations.



Multi-Pronged Approach for Oil & Gas Control



Multi-pronged approach establishes a platform for a comprehensive approach to working with oil and gas development issues



OTHER EFFORTS AND STUDIES

- Negotiating **MOU with COGCC** on delegation of inspection authority to the County
- **Updating surface use agreements** with operator on County-owned lands
- Formulating County **legislative positions** for the 2012 and future state legislative session on bills affecting oil & gas development and local authority to regulate
- Advocating for **changes to CDPHE regulations**, such as the recent rulemaking by the Air Pollution Control Division on possible revisions to Regulation Number 6 to partially adopt at the state level recent changes to federal (EPA) regulations
- Advocating to improve COGCC regulations and participating as a party in the current **COGCC setback and groundwater rulemakings**
- Reviewing the results of the third-party study currently underway of the potential impacts of oil and gas development on the **County transportation system**, and considering adoption of transportation fees to offset impacts
- Exploring contracting or staffing of **expertise** in oil and gas development to assist the public and staff
- Monitoring **research developments** in the field



PROPOSED LAND USE CODE CHANGES

Boulder County
Land Use Department



“DRAFT REGULATIONS” OVERVIEW

- Slightly modified Development Plan Review (DPR) process to review proposed oil and gas operations
 - New Article 12 of the Land Use Code

New or expanded regulatory areas include:

- ✓ Well siting provisions including **setbacks from occupied structures & residences***;
- ✓ Specific local **air quality** provisions*;
- ✓ **Water quality** provisions*;
- ✓ **Emergency response** provisions and **emergency preparedness** plan;
- ✓ Refined **transportation plans** requiring mitigation of impacts to public and private roads, plus a placeholder for a **transportation impact fee**;
- ✓ More expansive plans involving the siting of wells to address **compatibility with land uses, land disturbance**, impact on **agricultural lands, natural resources**, and **visual concerns**;
- ✓ Newly identified areas for additional purview of **cultural and historic resources, recreational activities, scenic and rural character impacts, wetland protection**, and **well abandonment**.

***Addressed for the first time in the County’s regulations**



“DRAFT REGULATIONS” OVERVIEW

- ✓ Pre-application conference before completing well siting determinations
- ✓ Notice to surrounding property owners and residents within a ½ mile
- ✓ Compliance of existing operations with the current regulations when a new well is proposed on an existing pad
- ✓ Creation of general operational requirements (e.g., conditions of approval) applicable to all proposed new wells that are designed to ensure oil and gas operations are conducted in the least impactful manner
 - Electrification
 - Traffic control measures
 - Dust suppression
 - Lighting standards
 - Fencing
 - Spills
 - Stormwater control plan
 - Weed control
- ✓ Certification, monitoring, and inspection throughout the oil and gas exploration and development process



“DRAFT REGULATIONS” OVERVIEW

Regulations contain two primary processes for the permitting of a new oil and gas operation:

- Expedited Development Plan Review (Expedited DPR)
- Standard Development Plan Review (Standard DPR)

Both the Expedited and Standard review processes provide the most protective land use regulations governing new oil and gas operations and each provides the **highest level of protection to public health and the environment.**

The processes differ in their regulatory approach and whether they achieve compliance through **objective standards (Expedited DPR)** or evaluate impacts and require mitigation on an **individual site basis (Standard DPR).**



“DRAFT REGULATIONS” OVERVIEW

Expedited Development Plan Review (Expedited DPR)

- The Expedited DPR process is for operators who **voluntarily choose to meet this objective criteria** based on permitting process and who engage in **most effective performance technologies and practices** in the planning, development and operation of new or significantly modified oil and gas operations.
- This process is available for operations that **meet certain well siting criteria, meet water well testing provisions, and meet air quality criteria beyond the county’s granted authority in a local permitting process.**
- In order to encourage its use, the process contains far fewer subjective based criteria and does not require, for the most part the development of impact mitigation plans.



“DRAFT REGULATIONS” OVERVIEW

Standard Development Plan Review (Standard DPR)

- The Standard DPR process is a **goal-based** based criteria land use permitting process.
- In the Standard DPR process, **subjective land use criteria** are used to review the impacts to resources on a **unique site-by-site basis**.
- The operator is required to create **mitigation plans** to protect land uses and the environment and to address surface impacts for each, identifying the techniques it will use to mitigate any potential impacts.
- For instance, rather than locating a proposed new well pursuant to specific objective criteria (500 feet from a residence, 500 feet from a water well, etc.), the Standard DPR process **requires the operator to locate a well in a manner that minimizes impacts** to adjacent land uses, water quality, air quality, visual and scenic resources, etc.



EXPEDITED v. STANDARD

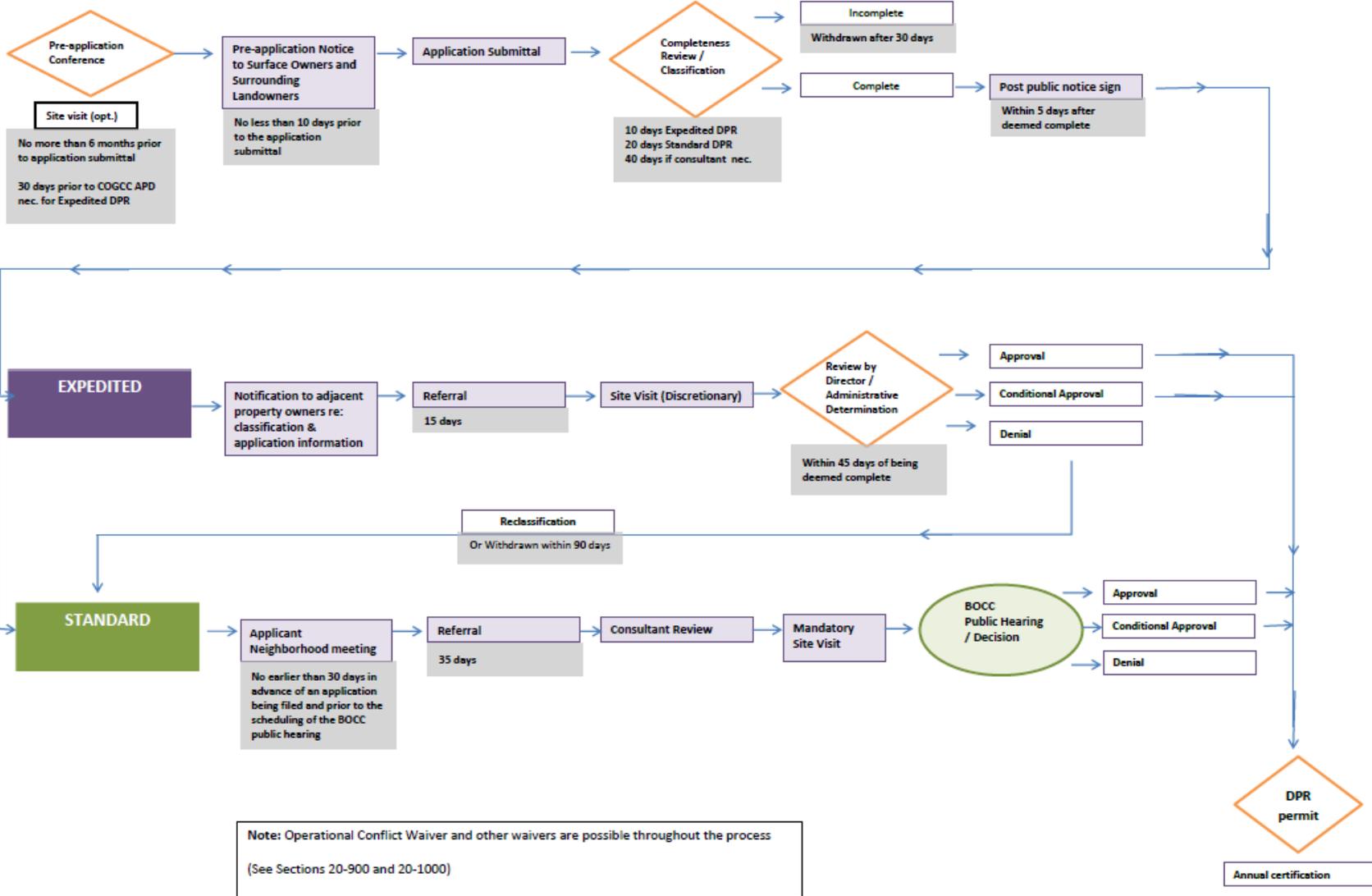
Expedited DPR Process:

- Must meet well siting provisions:
 - **1000 ft (PC)/500 ft (staff) from occupied structures**
 - **150 ft from property lines**
 - **500 ft from surface water bodies**
 - **500 ft from water wells**
 - **Not located in subdivision or townsite**
 - **Not within high hazard geologic area**
 - **Not located in floodway**
 - **Not located within wetlands**
 - **Not within BCCP natural resource and critical wildlife habitat areas**
- Agricultural Land Mitigation Plan
- **Air Quality Provisions (more expansive)**
- Emergency Preparedness Plan
- Land Disturbance
- Transportation System Impacts
- **Water quality monitoring and well testing provisions**
- **45-day administrative review**

Standard DPR Process

- Mitigation plans / review standards involving the siting of wells to address land use issues such as:
 - Agricultural Land Mitigation
 - Air Quality
 - Emergency Preparedness
 - Transportation System Impacts
 - Water Quality
- Plus:
 - Cultural and historic resources
 - Geologic hazards
 - Natural resources
 - Recreational activities
 - Scenic Attributes and Rural Character
 - Surrounding Land Uses
 - Wetlands Protection
- **Applicant Neighborhood Meeting** 30 days before filing application with the County
- **BOCC Public Hearing**





Oil and Gas Development Land Use Code Amendments

Expedited and Standard DPR Processes

10/1/2012



OTHER PROPOSED AMENDMENTS

Pipeline (Art. 4-506.D)

- Specific standards addressing the permitting of flow lines and gathering lines associated with proposed new oil and gas wells
- Flow lines = pipelines which connect individual well sites to gathering lines
- Gathering lines = pipelines transporting produced gas, oil, or water from multiple well sites to centralized facilities
- Draft Regulations contain new criteria concerning siting, alignment and minimizing of disturbance to the surface associated with new flow lines and gathering lines

Major Oil and Gas Facilities (Art. 4-514.E & P)

- Creation of a new use definition for major oil and gas operations
 - Water injection wells and facilities, centralized water transfer stations, centralized water pump stations, storage yards and construction staging yards in place for longer than 6 months
- These uses are not dependent upon being located in a certain area relative to the mineral source
- Use would be allowed in the General Industrial zoning district
- Require Special Use review



OTHER IDEAS UNDER CONSIDERATION

Existing well pads

Staff is interested in evaluating a method to incent the use of existing well pads.

- One possibility is to allow existing well pads to be eligible for Expedited Development Plan Review. Staff also understands from industry input that it is likely that most of the new wells in Boulder County will be planned for use on existing pads. Consequently, opening up existing pads for new wells would create more opportunity for the County to **gain the additional air and water quality protection measures** that can only be obtained through the Expedited DPR process.

- Benefits of utilizing existing well pads include:
 - less new disturbance on the site (no new roads, well pad areas, etc.)
 - shared use of infrastructure, and
 - where a new well is approved on an existing pad, the remaining infrastructure on the pad is required to be updated to meet the current regulatory standards to the extent practicable.



PUBLIC INPUT

Staff has received numerous emails from the public, which can be viewed on the County's oil and gas website at:

<http://www.bouldercounty.org/dept/landuse/pages/oilgas.aspx>

The majority of the emails are requests for the County to ban fracking due to concerns regarding impacts to air, water, public health and the environment.

Members of the public have also submitted a number of specific edits and suggestions to the Draft Regulations.



INDUSTRY INPUT

Staff has received letters and met with Encana and Noble, the primary operators in Boulder County.

Industry topics:

- Concerns that actual application of certain draft regulations are technically infeasible
- Concerns about air quality provisions beyond Air Pollution Control Division
- Concerns about interplay between County H2O testing protocol and COGCC prospective H2O testing program
- Chemical disclosure
- Potential need to use existing well pads
- Concern with electrification of all structures
- Concern with financial bonding requirements
- Comprehensive Plans



SUMMARY AND RECOMMENDATION

We do not anticipate that the BOCC will be able to take final action on the Draft Regulations at this initial hearing; however, staff finds that proposed Land Use Code amendments meet the criteria in Art. 16-100 of the Land Use Code in that:

1. *the existing text is in need of the amendment;*
2. *the amendment is not contrary to the intent and purpose of this Code;*
3. *the amendment is in accordance with the BCCP*

The overall goal contained within the Draft Regulations is to enact the most protective regulations governing new oil & gas operations yet harmonize application of our local regulations with the state.

- Planning Commission recommended approval to the BOCC.
- Staff recommends that the BOCC **APPROVE** *Docket DC-12-0003: Amendments to the Oil & Gas Development regulations*. If the BOCC is not ready to take final action tonight, Staff recommends tabling the docket to **November 15, 2012 at 9:00 a.m.** for discussion and direction.





Boulder
County

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