



Land Use

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BOULDER COUNTY BOARD OF COUNTY COMMISSIONERS

December 4, 2012, 4:00 P.M.

Commissioners' Hearing Room, Third Floor
Boulder County Courthouse
Boulder, Colorado

Docket 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 and

Public Hearing to consider adequacy of the length of the current temporary moratorium on Boulder County's processing of applications for oil and gas development in the unincorporated County (Resolution 2012-16, adopted 2/2/12), in terms of finalizing regulations and developing a plan to administer those new regulations. This moratorium hearing will happen as part of a combined hearing on the Oil and Gas Regulations, Docket DC-12-0003

Coordinating Staff: Kimberly Sanchez, Planning Division Manager - Land Use Department
Jeff Robbins, Outside Counsel on Oil and Gas Issues

PACKET CONTENTS:

Item	Pages
o Land Use Department Memo	2-8
o Draft Regulations (Attachment A)	A1-A45
o Maps (Attachments B1, B2, B3, B4, B5, B6)	B1-B6
o Encana Input Regarding Expedited DPR Setbacks (Attachment C)	C1-4

AGENDA

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

1. COUNTY STAFF PRESENTATION ON DC-12-0003 PROPOSED OIL AND GAS REGULATIONS
 - a. Kim Sanchez, Planning Division Manager – Land Use Department
 - b. Jeff Robbins, Outside Counsel on oil and gas issues
 - c. Pam Milmoie, Air Quality Coordinator – Boulder County Public Health
2. PUBLIC COMMENT REGARDING DRAFT 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. Anyone wishing to exceed 12 minutes must contact the Land Use Department with a request for consideration prior to the hearing.
3. BOARD OF COUNTY COMMISSIONERS DISCUSSION/ACTION/DIRECTION TO STAFF

Temporary moratorium on Boulder County's processing of applications for oil and gas development:

1. COUNTY STAFF PRESENTATION REGARDING CURRENT TEMPORARY MORATORIUM
2. PUBLIC COMMENT REGARDING TEMPORARY MORATORIUM (1-min. allowance per individual speaker)
3. BOARD OF COUNTY COMMISSIONERS DISCUSSION/ACTION/DIRECTION TO STAFF

SUMMARY

On November 13th staff introduced the Board of County Commissioners (BOCC) to the proposed revisions to Boulder County Land Use Code Article 4-900, Development Plan Review for Oil and Gas Operations (Draft Regulations) and related provisions of the Land Use Code. The BOCC heard from and asked questions of staff, the County's outside counsel, and the County's oil and gas technical consultant, and held a public hearing. The November 13th meeting was tabled to November 15th in order for the Board to think through the information that was presented as well as the public testimony received, and to provide direction to staff after having time for consideration. On November 15th the BOCC provided its initial comments to staff and the public.

The specific items in the BOCC's November 15th motion are discussed in detail in the table below, but in general the Board provided the following direction:

1. **General strategy** – The BOCC felt the County is headed in the appropriate direction by proceeding with adoption of updated oil and gas regulations. While they understand that the public would like to see a ban on fracking, based on the set of legal decisions made they do not think that such a ban would not be upheld. Consequently they want the County to adopt a protective set of regulations in order to have adequate rules in place to review any proposed oil and gas operations, while at the same time continuing to actively engage at the State in order to get better statewide rules while preserving and increasing authority for local governments. The Board foresees that the regulations will be dynamic and will need to continue to be improved upon and amended as more information and further studies become available and potentially as things change at the State level.
2. **Standard DPR process**– The BOCC would like Staff to do additional work to the Standard DPR process in order to ensure there is enough specificity in the review criteria that allow the County to achieve the desired protections.
3. **Existing well pads** – The Board sees the benefits to using existing well pads, given that that there are already over 200 existing well pads in unincorporated Boulder County. They

would like to see the regulations incentivize using existing well pads in the Expedited DPR process in particular.

4. **500' vs. 1000' setback from occupied structures in Expedited DPR process** – The BOCC is still considering what the appropriate setback from occupied structures should be in the Expedited DPR siting eligibility requirement. Although the Board understands that the setback needs to be accommodating enough to allow for the Expedited DPR process to be viable, they are concerned with the distance being adequate enough to mitigate potential impacts as well as the message that will be sent to the broader community in selecting the specific setback. The BOCC would like to keep both 500' and 1000' options alive at this point for further consideration. Commissioner Gardner requested that staff quantify what the differences would be on the ground for 500 foot, 750 foot, and 1000 foot setbacks.
5. **Industry edits** – The Board supports Staff's continuing discussions with Industry and resultant revisions to the regulations provided any requested changes still provide the protections the County requires.

Additionally, the Board was supportive of the idea of air quality monitoring and was interested in exploring how Boulder County Public Health could be engaged in a monitoring program as part of the multi-pronged scheme. More information was requested regarding the cost and scope of an air monitoring study. Preliminary estimates and information will be provided to the Commissioners by Boulder County Public Health at today's public hearing.

Questions the Commissioners had regarding dust suppression (Section 12-800.F) will also be addressed by Public Health.

ACTION REQUESTED FROM THE BOARD OF COUNTY COMMISSIONERS:

Today's public hearing is to review the revised Draft Regulations, which were revised by Staff in response to the direction received from the BOCC on November 15th.

Staff requests that following today's staff presentation and public testimony, the Board of County Commissioners either (1) take final action or (2) provide direction to staff on desired changes to the latest draft and table the subject docket to December 13, 2012 at 4:00 p.m. for final action at that time.

Anticipated Schedule for BOCC's Review of the Draft Regulations:

- **Thursday December 6, 2012 at 4:00 P.M.** –The Board of County Commissioners will hold a public meeting in order for staff and transportation consultants to present the results of the Transportation Oil and Gas Roadway Impact Study. This meeting will be informational only. No public testimony will be taken.
- **Thursday December 13, 2012 at 4:00 P.M.** – Anticipated adoption of the proposed regulations by the BOCC.

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

INDUSTRY INPUT

Staff met with Industry on November 12th and November 28th and has incorporated some changes into the Draft Regulations based on that discussion. Those changes are noted and described in the table below. In general, the edits address operational concerns brought forth by Industry yet still maintain the same level of protection generated by the initial draft of the regulations.

PUBLIC INPUT

All public comment received to date is available on the County's oil and gas website at:
<http://www.bouldercounty.org/dept/landuse/pages/oilgas.aspx>

PROPOSED REVISIONS

The following table breaks down the proposed revisions to the Draft Regulations pursuant to the motion made by the BOCC at the November 15th public meeting. Each item in the Board's November 15th motion is summarized and staff's response to the direction given is discussed accordingly. The proposed revisions are redlined in the revised Draft Regulations (Attachment A).

BOCC Motion	Staff Response / Proposed Revision
1. Expedited DPR Eligibility for New Well Pads	
Distinguished between Expedited Development Plan Review for New Well Pads and Existing Well Pads	<ul style="list-style-type: none"> ✓ Created separate Section 12-601.B for New Well Pads ✓ Edit to Section 12-400.E.2 to establish Expedited DPR setback criteria is determined at time application is deemed complete ✓ Commissioners need to determine whether to use Planning Commission recommendation of 1000' from any occupied structure or the staff recommendation of 500' from any occupied structure ✓ Other siting criteria remain the same, with the exception of the following staff recommendations: <ul style="list-style-type: none"> • Drop 150' setback from property lines since this is a COGCC requirement • Allow wells to be sited on Non Urban Planned Unit Development (NUPUD) outlots (Section 12-601.B.5) • Strike prohibition of wells in wetlands since this is covered mostly by surface waters (12-601.B.3), but added wetland review into Section 12-602.E.5; Expedited DPR could then be reclassified into Standard DPR if there was a conflict with impact to wetlands • Clarified that Comprehensive Plan resources (12-601.B.9) are those that have been mapped at the effective date of these regulations per the request of Industry

2. Expedited DPR Eligibility for Existing Well Pads	
Developed Eligibility Criteria for Expedited Review of Existing Well Pads	<ul style="list-style-type: none"> ✓ Created separate Section 12-601.C for Existing Well Pads ✓ Edit to Section 12-400.E.2 to establish Expedited DPR setback criteria is determined at time application is deemed complete ✓ Proposed siting criteria would be relaxed or eliminated in order to make the use of existing well pads viable. Staff proposes the following siting criteria for use of existing well pads: 350' from occupied structures (however the wellhead and new equipment located the furthest away from occupied structures) <ul style="list-style-type: none"> • 300' from surface water bodies • 500' from domestic or commercial water wells or irrigation wells • Not located within platted subdivisions or mapped townsites, except NUPUD outlots • Not located within a floodway ✓ See Attachment C1- Map for more detail ✓ See table in Existing Well Pads section below for quantification of the setback differences
3. Strengthening Standard DPR criteria	
Strengthening Standard criteria	<ul style="list-style-type: none"> ✓ Additional language added to Section 12-703.F Land Disturbance Standards ✓ More requirements under Water Quality Standards Section 12-703.L ✓ Additional language added to 12-703.M Wetlands Protection

4. Other Edits	
<p>Staff made a number of edits based off internal discussions, input from the public, County's outside technical consultant, the COGCC, and operational driven changes resulting from discussions with Industry (Encana and Noble). Changes that maintain the protections the County seeks to ensure were supported by staff.</p>	<ul style="list-style-type: none"> ✓ Section 12-400.D moved to Section 12-400.A.2 since pre-application conference happens only at beginning of the process. ✓ Added consultant provision to Section 4-601.E in case consultant review is needed during Expedited DPR; refinement of language in both Expedited DPR and Standard DPR sections to include notification that County has retained a consultant, chance to provide input, and requirement escrow funds; amount of fees must be reasonably related to the cost to review. ✓ Section 12-400.G.1 – Allow for Industry to provide notice using alternative methods to mail if approved by the Director ✓ Section 12-500.H. – Allow the site plan required by COGCC Rule 303(c) and forms 2 and 2A to serve as the basis for the Site Plan and Parcel Information ✓ Section 12-601.B.9 – Recognize the Comprehensive Plan layers that are in effect as of the effective date of this Article. ✓ Section 12-602.A.2.a & 12-703.B- Clarify that 98% is a manufacturer specification not operational requirement ✓ Section 12-602.A.2.b, c, and d and 12-703.B.2.a, b, and d - Deleted reference because it is applicable to large flares and gas plants and refineries and not applicable to well sites; these regulations have methods and techniques that are not applicable to well site combustors ✓ Section 12-602.A.5.d – Corrected reference so that it refers to well instead of facility ✓ Section 12-602.A.5.f – Changed drilling to well completion to more appropriately place requirement in the development process. ✓ Section 12-602.A.10 – Deleted rod packing replacement requirement because captured with leak detection ✓ Section 12-602.B.2.i and j and 12-703.D– Removed Planning Commission edit because provision of MSDS data sheet suffices for emergency response needs; i and j now consolidated; “products” referenced instead of “chemicals” ✓ Section 12-602.C.2 and C.2.c– Industry requested edits to alleviate concern about testing “all” water wells, to provide a reasonableness standard in terms of Operators getting a response for water well sampling, and to provide a defined time period for testing. The change still provides a reasonableness standard for notice and opportunity to sample wells and adequately monitor. ✓ Section 12-602.C.4 - Non-liability section added in order to clarify that testing protocol does not necessarily mean that a bad test result will be

4. Other Edits	
	<p>imputed to oil and gas operations</p> <ul style="list-style-type: none"> ✓ Changes to Table 1 – Water Quality Analytes ✓ Changes to Section 12-800 Conditions of Approval in order to be consistent with COGCC requirements ✓ Section 12-800.G Electrification – Modification to allow some flexibility of all electrification of permanent equipment ✓ Section 12-900.B – Technical edit to address COGCC concern in Operational Conflict Waiver ✓ Sections 12-1200 & 12-1300.B & D Bonding/financial guarantees - Staff determined that bonding could be removed in order not to duplicate COGCC requirement; enforcement will occur through stop work orders ✓ Section 12-1200 Right to enter – County inspections shall be coordinated with the operator to ensure operator presence onsite and to ensure the site visit is conducted in accordance with all applicable operator safety requirements.

EXISTING WELL PADS

As mentioned above, the Board was interested in the idea of allowing existing well pads to be eligible for Expedited Development Plan Review. 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. 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.

In order for this existing well pad idea to be viable, flexibility with the setbacks and which siting criteria apply is necessary. Per the request of the Board, Staff ran scenarios illustrating 350 foot, 500 foot, 750 foot, and 1000 foot setbacks from occupied structures, as well as 300 foot and 500 foot setbacks from surface water bodies. Those setbacks are summarized in the table below:

Well Sites Eligible / Not Eligible				
Occupied Structure Setback	Surface Water Setback			
	300 feet		500 feet	
	Eligible	Not Eligible	Eligible	Not Eligible
350	153 (70%)	66 (30%)	117 (53%)	102 (47%)
500	137 (63%)	82 (37%)	105 (48%)	114 (52%)
750	102 (47%)	117 (53%)	80 (37%)	139 (63%)
1000	67 (31%)	152 (69%)	54 (25%)	165 (75%)

FUTURE EDITS

- Comprehensive Drilling Plans – The BOCC indicated they would like to hold off on including this concept in the current set of regulations but would like to consider developing the idea further in the future so long as it holds to the air and water quality requirements that can be obtained in the Expedited DPR process.

TEXT AMENDMENT CRITERIA REVIEW

Pursuant to Article 16-100 of the Land Use Code, no text amendment shall be adopted by the Board of County Commissioners unless the Board has determined 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; and
3. the amendment is in accordance with the *Boulder County Comprehensive Plan*.

Planning Commission, by a vote of 6-1, provided a recommendation to approve the Draft Regulations onto the Board of County Commissioners. The moratorium adopted by the Board of County Commissioners demonstrated the need for the amendments; the amendments are not contrary to the intent and purpose of the Code but update and revise the outdated DPR regulations that are currently in place; and the amendments do not conflict with the Boulder County Comprehensive Plan but they implement many of the policies that were adopted by the Planning Commission on August 15, 2012. Consequently, staff finds the criteria for text amendments in Article 16-100.B. of the Land Use Code are met.

SUMMARY AND RECOMMENDATION

The overall goal contained within the Draft Regulations is to work within the land use authority provided to counties by enacting the most protective regulations governing new oil and gas operations while at the same time recognizing the extent of state authority over oil and gas operations. Staff has attempted to create processes that address areas of great local importance but harmonize application of the local regulations with the state.

STAFF RECOMMENDS THAT THE BOARD OF COUNTY COMMISSIONERS APPROVE Docket DC-12-0003: Amendments to Oil and Gas Development Regulations and the official record of the Docket before the Board with its staff comments, public testimony, and Board discussion/action.

If the Board is not ready to take final action on the subject docket on December 4, Staff recommends that the Board table the docket to December 13, 2012 at 4:00 p.m.

ATTACHMENT A.1

Proposed New Article 12

Development Plan Review for Oil and Gas Operations

12-100 Purpose

- A. Boulder County acknowledges the existence of oil and gas mineral property rights within its unincorporated areas. It is the County's objective to exercise its fundamental duty to protect public health, safety, welfare, and the environment from potential adverse impacts of oil and gas exploration and development, and to minimize potential land use conflicts between those activities and current, ~~or~~ planned or future land uses.
- B. Development plan review (DPR) is the permitting procedure for oil and gas operations. This process is in place because these operations involve industrial type activities which may occur in or near residential and rural areas. Traditional zoning would generally separate these types of uses to mitigate impacts but, because this use must occur near the resource, separation of uses is not possible and, thus, this Article has been promulgated to address this incompatibility. The purpose is to provide a framework for the exploration and production of oil and gas resources in a manner that considers current, planned or future land uses and that mitigates adverse impacts to those uses and to the public health, safety, welfare, and the environment of the County.
- C. This Article is consistent with the land use authority over oil and gas operations that the Colorado legislature has provided the County and as has been defined and clarified by Colorado courts. Boulder County recognizes that certain Colorado state agencies and the federal government also have authority to regulate certain aspects of oil and gas operations. The regulations of this Article over the land use aspects of oil and gas operations are consistent with this authority. In particular, this Article is not intended to create and is not to be applied so as to cause an operational conflict with the state's exercise of its authority over oil and gas operations, which arises when the effectuation of a local interest materially impedes or destroys the state's s interest in its regulation of oil and gas operations.

12-200 Authority of Article

This article is authorized by C.R.S. §§ 25-8-101 et seq., 29-20-101 et seq., 30-28-101 et seq., 34-60-101 et seq., 25-7-101 et seq., and other authority as applicable.

12-300 Effective Date; Pre-Existing Uses

- A. This Article shall become effective on the date specified in the adopting resolution of the Board of County Commissioners. The provisions of this Article shall apply to all oil and gas operations for which a complete application for development plan review has not been accepted by the County as of the effective date.
- B. Boulder County acknowledges that there are oil and gas operations that were legally established prior to the effective date of this Article that do not conform to this Article. These non-conforming operations shall be allowed to continue provided the post-~~effective~~ date operation remains consistent with the pre-effective date operation. A nonconforming operation shall not be extended, expanded, or altered in a manner that would otherwise be categorized a

substantial modification under Section 12-1200(DE) of this Article. Any substantial modification to a non-conforming use shall require a new approval under this Article.

- C. Section 12-400(D)(1) of this Article provides that the expedited development plan review for new oil and gas operations is not available for applications where the Applicant fails to conduct the pre-application conference with the County at least thirty (30) days prior to filing for an Application for Permit to Drill (APD) from the Colorado Oil and Gas Conservation Commission (COGCC). The County recognizes, however, that proposed new oil and gas operations may have received APD approval from the COGCC during the development of and prior to the effective date of this Article. For these applications, the County encourages the use of the expedited development plan review process. Accordingly, oil and gas operations with APD approval prior to the effective date of this Article that otherwise qualify for expedited development plan review may be processed as expedited development plan review applications.

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

A.

1. **Development Plan Review Required.** All oil and gas operations on public and private land within the unincorporated areas of Boulder County shall comply with this Article. Prior to the commencement of any oil and gas operations in the unincorporated County, a development plan review application must be submitted and approved in accordance with this Article. No other form of discretionary land use review under this Code is required for oil and gas operations covered by this Article 12. Development plan review approval is also required prior to the issuance of any County building permits, or associated grading, access, floodplain, or other County permits necessary for the oil and gas operation. Oil and gas operations which may not require a building or other associated County permit must still obtain development plan review approval under this Article.

~~1-2.~~ **Community Engagement.** Boulder County requires Applicants to engage with local communities, residents and other stakeholders at each phase of an oil and gas operation, starting prior to exploration or development activity, in order to provide sufficient opportunity for comment on plans, operations and performance, and to listen to concerns of the community, and to address all reasonable concerns as a result of a proposed operation.

- B. **Expedited Development Plan Review Process.** The expedited development plan review process is the County's process for Applicants who voluntarily choose to meet its objective criteria and to engage in most effective performance technologies and practices in the planning, development and operation of new or substantially modified oil and gas operations. The process identifies specific objective criteria for oil and gas operations. The expedited development plan review process is optional and, while Applicants are encouraged to use it, this Article also offers a standard development plan review process for proposed operations that cannot meet the expedited development plan review criteria or for Applicants who choose the standard development plan review process. The expedited development plan review process is an administrative process that only requires review and ~~decision approval~~ by the Director.
- C. **Standard Development Plan Review Process.** The standard development plan review process is a regulatory process based primarily upon subjective or content specific criteria for new or

1 substantially modified oil and gas operations. The standard development plan review process is
2 available for Applicants who choose it, for applications that do not qualify for expedited
3 development plan review, or for applications that the Director reclassifies from expedited
4 development plan review to standard development plan review. Such applications shall be
5 classified as standard development plan review applications and shall be reviewed by the County
6 and shall require review, public hearing, and decision by the Board of County Commissioners.
7

8 **D. Pre-Application Conference.** ~~Boulder County requires applicants to engage with local
9 communities, residents and other stakeholders at each phase of an oil and gas operation,
10 starting prior to exploration or development activity, in order to provide sufficient opportunity
11 for comment on plans, operations and performance, and to listen to concerns of the community,
12 and to address all reasonable concerns as a result of its proposed operation. The pre-application
13 conference will be used to meet this requirement.~~
14

15 **1. Timing.** A pre-application conference as defined in Article 3-201 of this Code shall be held at
16 least thirty (30) days prior to both the Applicant applying for a COGCC APD and submitting
17 an application for development plan review. The timing provision for the pre-application
18 conference is intended to allow the County to concurrently carry out its regulatory
19 procedures in harmony with those of the COGCC. Except for applications under Section 12-
20 300(C), if the pre-application conference is not conducted at least thirty (30) days prior to
21 the Applicant applying for the APD, the application cannot qualify for expedited
22 development plan review.
23

24 **2. Conference.** At the pre-application conference, the Director and the Applicant will discuss
25 the points contained in Article 3-201 of this Code and review the County's development plan
26 review process so that the Applicant can plan its proposed oil and gas operation in a manner
27 that ensures compliance with the development plan regulations and applicable state and
28 federal regulations. The pre-application conference also will inform the Applicant about the
29 benefits of the expedited development plan review process. The pre-application conference
30 also allows the Applicant and Director to explore site-specific concerns and issues that relate
31 to the development plan review process, to discuss project impacts and potential mitigation
32 methods, to discuss coordination of the County process with the state permitting process,
33 and to allow the Applicant to preliminarily raise any potential operational conflict concerns.
34 Based upon the foregoing, Applicants are encouraged to conduct the pre-application
35 conference with the County prior to completing well siting decisions. Completion of the pre-
36 application conference qualifies the Applicant to submit an application for a development
37 plan review provided the application is filed within six (6) months after the pre-application
38 conference.
39

40 **3. Site Visit.** At the discretion of the Director after consultation with the surface owner, the
41 Director may require a site visit as part of the pre-application conference with the Applicant to
42 evaluate well locations, compliance with this Article, or mitigation measures that may be
43 required to adequately ensure compliance with this Article.
44

45 **E. Application Submission and Completeness Determination.** The application shall include
46 documentation establishing that the proposed operation is in compliance with all applicable
47 requirements of this Article. Boulder County encourages the submission of the application and
48 supporting documentation in an electronic format. If not electronically submitted, then the
49 Applicant shall submit three (3) copies of the proposed development plan with the completed
50 application form to the Land Use Department. The application shall contain a certification from
51 the Applicant that the proposed operation complies with all applicable provisions of this Article,
52 and that the information in the application, as well as in any accompanying documentation, is
53 true and accurate. The application shall be signed by the same person or entity who will sign the

corresponding application(s) to be submitted to the COGCC. The Director shall determine whether an expedited development plan review application is complete within ten (10) days after receipt of the application or twenty (20) days if outside consultants or staff other than the Land Use Department assist the Director with the completeness determination. The Director shall determine whether a standard development plan review application is complete within twenty (20) days after receipt of the application or forty (40) days if outside consultants or staff other than the Land Use Department assist the Director with the completeness determination.

1. Application Deemed Incomplete. If the application is found to be incomplete, the Director shall inform the Applicant in writing of the deficiencies. No further action shall be taken on an application determined to be incomplete until the specified deficiencies have been addressed to the satisfaction of the Director. If the Applicant fails to address the deficiencies within thirty (30) days after the notice of incompleteness, the application shall be deemed withdrawn, unless the Applicant notifies the Department in writing of the need for additional time. Notwithstanding the foregoing, upon the request of the Applicant, the County will process an application that has been deemed incomplete as a standard development plan review application and the Director shall recommend denial of the standard development plan review application at any hearing before the Board of County Commissioners, unless the Applicant satisfactorily remedies the application's deficiencies.

2. Application Deemed Complete. If the application is found to be complete, containing all documentation required by this Article, the Director shall date the application, inform the Applicant of the finding of completeness, classify the application as expedited or standard, and then review the application for compliance with the applicable standards and requirements of this Article. The Section 12-601(B)(1)-(7) and (C) expedited DPR setbacks siting criteria shall be based upon the actual locations of occupied structures, surface water bodies, etc., as of the date the application is deemed complete.

F. Re-Classification. At any time prior to administrative action on an expedited development plan review application, the Director may adjust the review process classification for the application. If an application is classified standard development plan review, at any point prior to the time the Department calendars the public hearing before the Board of County Commissioners for the standard development plan review application, the Applicant may tender supplemental information and documentation and request the Director reconsider the classification decision for the application.

G. Notice.

1. The Applicant shall mail notice to surface owners, to surrounding landowners, and to residents as identified in this section no less than ten (10) days prior to the application being submitted to the Department. If approved by the Director, the Applicant may provide notice using alternative notice methods.

2. Notice of the application shall be made as follows:

- a. To the surface owners of the parcels of land on which the oil and gas operation is proposed to be located; and
- b. To the owners of the parcels of land within five hundred (500) feet of a proposed gathering line; and
- c. To the owners of the parcels of land within one-half mile (2,640 feet) of the parcel on which the oil and gas operation is proposed to be located; and

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- d. To the physical address of all parcels within one-half mile (2,640 feet) of the parcel on which the oil and gas operation is proposed to be located if Boulder County Assessor's records indicate a mailing address for the parcel owner that is different than the physical address.

The County Land Use Department shall provide the list of addresses of record for property owners within one-half mile (2,640 feet) of the parcel on which the oil and gas operation is proposed to be located to the Applicant at the pre-application conference [so the Applicant can provide notice as required by this Section.](#)

3. The notice shall contain the following:

- a. A description of the proposed operation site location, including a legal description, as well as a street address for the site, if available from the County's rural addressing system; the identification of the Applicant for the application; the current business address, telephone number, and email address for the Applicant; a vicinity map; and a brief description and overview of the proposed operation including details of the drilling techniques (i.e., a detailed description of the type and extent of any proposed hydraulic fracturing).
- b. information concerning the facilities and equipment proposed to be located at the site when operational, and proposed access roads and gathering lines.
- c. The anticipated submittal date of the application to the Department.
- d. A statement that public comments on the application may be submitted to the County Land Use Department after the application submittal date.
- e. A statement concerning the County's right to enter property that is the subject of the application as follows: "For the purpose of implementing and enforcing the County's development plan review for oil and gas operation regulations, County staff may from time to time need to enter onto the property that is the subject of a development plan review application."
- f. A statement that the Applicant will be contacting any entities that maintain any road used for access to the proposed operation to discuss the Applicant's transportation needs and to discuss the Applicant sharing in road improvement and maintenance necessitated by the proposed oil and gas operation through an agreement between the entity and the Applicant.
- g. A statement informing the recipients of the notice that they may request written notification by the Applicant of the commencement of construction and commencement of drilling operations, if the application is approved.
- h. The current mailing address, website address, and telephone number for the County Land Use Department and the COGCC, as well as a statement that additional information on the application is available from the County Land Use Department.

- H. **Posting Sign Onsite.** The Applicant shall post a sign on the site of the proposed operation in a location visible to the public (i.e., visible from a public road) stating that a development plan review application has been applied for and providing the phone number of the County Land Use Department where information regarding the application may be obtained. The sign shall

1 be provided to the Applicant by the County and shall be posted within five (5) days after the
2 application has been deemed complete.
3

4 **12-500 General Application Submittal Requirements for** 5 **Expedited DPR and Standard DPR**

6
7 The following information must be submitted with an expedited development review plan application or a
8 standard development review plan application:
9

- 10 **A. County Application Form.**
- 11
- 12 **B. Mineral Owner.** Certification of ownership of the mineral estate or of all necessary lease
13 interests in the mineral estate.
- 14
- 15 **C. Date of APD Filing.** Anticipated or actual date of associated APD filing with the COGCC.
- 16
- 17 **D. Pre-application Conference Checklist.** Completion of form provided by the Land Use
18 Department at the pre-application conference.
- 19
- 20 **E. Proof of Notice.** Certification of proper notice as required by Section 12-400(G).
- 21
- 22 **F. Verification of Legal Access and Use of Private Roads.** Information demonstrating that the
23 Applicant has the right to use private access roads which are necessary for the operation and that
24 the Applicant has entered into an agreement with the private road owner regarding maintenance,
25 improvements necessitated by the proposed oil and gas operation, and reimbursement for
26 damages. Recorded or historically used easements providing access to or across the parcel(s)
27 shall be provided.
- 28
- 29 **G. Proximity of Other Wells and Other Oil and Gas Operations.** A map showing the location of
30 all producing, closed, abandoned, and shut-in wells and other oil and gas operations within one
31 (1) mile of the site.
- 32
- 33 **H. Site Plan and Parcel Information.** The scaled drawing required by COGCC Rule 303(c) and forms
34 2 and 2A may serve as the basis for the Site Plan and Parcel Information, however, the following
35 information must be included: A map with north arrow and appropriate scale for the parcel
36 on which the operation is proposed, indicating the following:
37
 - 38 **1. Well Siting.** The location of wellhead, pumping units, tanks, and treaters. Expedited
39 development plan review applications shall also include information establishing
40 compliance with the well siting criteria of Section 12-601(B) or 12-601(C).
 - 41
 - 42 **2. Dimensions of the Site.** Dimensions of the site, indicating area in square feet and acres,
43 and the area of the site to be disturbed for permanent operations and temporary
44 operations.
 - 45
 - 46 **3. Easements and Rights-of-Way.** Utility line easements and rights-of-way within 150 feet of
47 the proposed site and access road.
 - 48
 - 49 **4. Improvements.** Existing improvements within 1,500 feet of the location on which the
50 operation is proposed.
51

- 1 **5. Existing and Proposed Facilities.** Existing and proposed facilities such as structures,
2 pipelines, tanks, wells, gathering lines, flow lines, staging and storage areas, equipment,
3 temporary use area and permanent well pads.
4
- 5 **6. Existing and Proposed Roads.** Existing and proposed roads within the parcel and on the
6 site as well as ingress and egress from public and private roads.
7
- 8 **7. Parcel and Site Features.** Parcel and site features such as floodplains, water bodies,
9 drainage patterns, ditches, wetlands or aquatic habitat, vegetative cover, wildlife habitat
10 and wildlife migration routes, and geologic features as defined in the Comprehensive Plan
11 or identified onsite and within 1,500 feet of the location on which the operation is
12 proposed.
13
- 14 **8. Topography.** Existing and proposed topography at five-foot intervals to portray the
15 direction and slope of the area within 1,500 feet of the operation.
16
- 17 **I. Agricultural Land Mitigation Plan.** An assessment of any agricultural lands potentially
18 impacted by the proposed operation and a plan for mitigating said impacts in compliance with
19 Section 12-602(~~DE~~) (for expedited DPR applications) or Section 12-7034(A) (for standard DPR
20 applications).
21
- 22 **J. Air Quality Plan.** A plan establishing compliance with the air quality provisions of either
23 Section 12-602(A) (for expedited DPR applications) or Section 12-703(B) (for standard DPR
24 applications).
25
- 26 **K. Emergency Preparedness Plan.** A plan establishing compliance with the Emergency Response
27 provisions of either Section 12-602(B) (for expedited DPR applications) or Section 12-703(D)
28 (for standard DPR applications).
29
- 30 **L. Land Disturbance Mitigation Plan.** An assessment of areas of land disturbance, an analysis of the
31 species, character and density of existing vegetation on the site, a summary of the potential
32 impacts to vegetation as a result of the proposed operation, and a plan, including proposed
33 landscaping, revegetation, and other mitigation measures, demonstrating compliance with the
34 standards of Section 12-602(~~FE~~) (for expedited DPR applications) or Section 12-7023(F) (for
35 standard DPR applications).
36
- 37 **M. Operations Plan.** A plan describing the proposed operations including the method and schedule
38 for drilling, completion, transporting, production and post-operation activities.
39
- 40 **N. Transportation Plan.** The Applicant shall submit a report establishing compliance with the
41 transportation standards in Section 12-602(D) (for expedited DPR applications) or Section 12-703(K)
42 (for standard DPR applications) and which contains with the following information:
43
- 44 1. Map indicating proposed trip routes for all traffic serving the oil and gas operation during
45 all phases of well development and operations.
46
- 47 2. Indicate for each segment of the proposed route in Boulder County the types, sizes,
48 weight, number of axles, volumes, and frequencies (daily, weekly, total) and timing
49 (times of day) of all vehicles to be used for the proposed oil and gas operation.
50
- 50 3. Identify all measures necessary to ensure the safety and quality of life experience of
other users of the county transportation system, adjacent residents, and affected
property owners, including without limitation:

- 1 a. operational measures to minimize impacts to the public including, but not
2 limited to, time of day, time of week, vehicle fuel and emissions reduction
3 technology, noise minimization, and traffic control safety measures;
- 4 b. maintenance practices on the proposed route, including without limitation,
5 grading of unpaved roads, dust suppression, vehicle cleaning necessary to
6 minimize re-entrained dust from adjacent roads, snow and ice management,
7 sweeping of paved roads/shoulders, pothole patching, repaving, crack sealing,
8 and chip sealing necessary to maintain an adequate surface of paved roads
9 along the proposed route; and
- 10 c. any necessary physical infrastructure improvements to ensure public safety for
11 all modes of travel along travel routes to and from the site.

12 **N. Water Quality Plan.** A plan establishing compliance with the water quality provisions of
13 either Section 12-602(C) (for expedited development plan review applications) or Section 12-
14 703(L) (for standard development plan review applications).
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12-600 Expedited Development Plan Review

12-601 Expedited DPR Process

A. Administrative Action. An application that qualifies for the expedited development plan review process shall be reviewed and acted upon by the Director.

B. Eligibility for Expedited Development Plan Review For New Well Pads. A proposed operation to be located on a new well pad will qualify for the administrative expedited development plan review process based upon a determination by the Director that it meets the following siting criteria:

1. The wellhead, pumping units, tanks, and treaters are each at least [Planning Commission recommended language: "1000 feet from any occupied structure"; Staff recommended language: "500 feet from any occupied structure"].

~~2. The wellhead, pumping units, tanks, and treaters are each at least 150 feet from any property line, unless verified written consent is obtained from all affected property owners.~~

~~3.2.~~ The wellhead, pumping units, tanks, and treaters are each at least 500 feet from any surface water body including, but not limited to, ditches and reservoirs as identified and mapped on the County's Ditch and Reservoir Directory.

~~4.3.~~ The wellhead, pumping units, tanks, and treaters are each at least 500 feet from any domestic or commercial water wells or irrigation wells.

~~5.4.~~ The wellhead, pumping units, tanks, and treaters are not located within a platted subdivision or a mapped townsite, except outlots in Non-Urban Planned Unit Developments ("NUPUDS").

~~6.5.~~ The wellhead, pumping units, tanks, and treaters are not located within a high hazard geologic area as defined in the Comprehensive Plan.

~~7.6.~~ The wellhead, pumping units, tanks, and treaters are not located within a floodway as defined in Article 4-400.

~~8.7. The wellhead, pumping units, tanks, and treaters are not located within wetlands areas.~~

~~9.8.~~ The wellhead, pumping units, tanks, and treaters are not located within mapped significant natural communities, natural landmarks and natural areas, rare plant areas, significant riparian corridors, or critical wildlife habitat as each is defined in the Comprehensive Plan, in effect as of the effective date of this Article.

C. Eligibility for Expedited Development Plan Review For Existing Well Pads. A proposed operation to be located on an existing well pad will qualify for the administrative expedited development plan review process based upon a determination by the Director that it meets the following siting criteria:

1. The wellhead, pumping units, tanks, and treaters are each at least 350 feet from any occupied structure. The wellhead and all new equipment shall be located the furthest away from all occupied structures.

2. The wellhead, pumping units, tanks, and treaters are each at least 300 feet from any surface water body including, but not limited to, ditches and reservoirs as identified and mapped on the County's Ditch and Reservoir Directory.

3. The wellhead, pumping units, tanks, and treaters are each at least 500 feet from any domestic or commercial water wells or irrigation wells.

4. The wellhead, pumping units, tanks, and treaters are not located within a platted subdivision or a mapped townsite, except outlots in NUPUDs.

5. The wellhead, pumping units, tanks, and treaters are not located within a floodway as defined in Article 4-400.

C.D. Referral by Director.

1. Following determination that an application for expedited development plan review is complete, the Director shall promptly forward one copy to: the County Transportation, and Parks and Open Space Departments; Boulder County Public Health; the appropriate fire district or County Sheriff; and any appropriate municipality for comment. The Director may also refer the application to other government agencies or entities for review and comment. Referral comments on the proposed development plan shall be returned to the Director within fifteen (15) days from the date of transmittal of the referral.
2. The Director shall notify the properties as identified in 12-400(G)(2) of the receipt of the complete application. The notice shall also identify the classification of the application. The notice shall indicate that a complete development plan review application has been received, include the phone number of the Land Use Department where information regarding the application may be obtained, and include a link to the County website for access to the complete application.

E. Consultant Review. The Director may submit the application for review and recommendation by consultants retained by the County with the necessary expertise to review technical or other aspects of the application. The Applicant shall be notified if the Director decides to retain a consultant, shall be given the opportunity to provide input concerning consultant selection and scope of work, and shall escrow funds reasonably related to the anticipated costs attendant to the consultant's review. The Applicant shall be responsible for the actual costs associated with this consultant review and shall be refunded any excess escrowed funds.

D.F. Review by Director.

1. The Director shall administratively review and make a determination within forty-five (45) days after ~~the~~ the application is deemed complete. The Applicant shall have the ability to extend the foregoing time period. The Director may extend the foregoing time period if the Applicant requests an operational conflict waiver hearing pursuant to Section 12-900(B). Failure to make a determination on the application within this time period shall result in the application being approved subject to the general oil and gas facility operation requirements and standard conditions of approval contained within this Article at Section 12-800.
2. As part of the review, the Director may conduct a site visit. Following review of the completed application within the time period in Section 12-601(~~DE~~)(1), the Director may approve, approve with conditions necessary to ensure compliance with this Article, or deny the application based upon non-compliance with the expedited development plan review

standards at Section 12-602. The Director shall provide its determination to the Applicant in writing. The Land Use Department shall also provide public notice of the Director's decision by posting the Director's determination on the Boulder County website. If denied, the Applicant may request the application be re-classified pursuant to the provisions of Section 12-603.

3. After approval of a development plan review application, the Applicant shall comply with the provisions of Section 12-1200([CB](#)), Effect of the Approved Development Plan.

12-602 Expedited DPR Approval Standards

All expedited development plan review applications shall be reviewed in accordance with the following standards which the Director has determined to be applicable based on the nature and extent of the proposed development. The Director shall approve expedited DPR applications for oil and gas facilities that demonstrate compliance with the following.

- A. **Air Quality Standards.** Air emissions from wells shall be in compliance with the permit and control provisions of the Colorado Air Quality Control Program, Title 25, Section 7, C.R.S., and the fugitive dust regulations administered by Boulder County Public Health. In addition, proposed oil and gas operations shall implement an air quality mitigation plan which establishes compliance with the following mitigation measures of this Section.

1. **General Duty to Minimize VOC Emissions.** All continuously operated equipment, including but not limited to, storage vessels, tanks, separators, pneumatic pumps, dehydrators, and compressors, shall route natural gas and VOC vapors to a capture or control device with at least a 98% VOC destruction efficiency, to the maximum extent practicable. The Applicant shall submit to the County manufacture test or other data demonstrating a 98% VOC destruction or control efficiency.

- a. Any flare, auto ignition system, recorder, vapor recovery device or other equipment used to meet the 98% VOC destruction or control efficiency requirement shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

2. **Flares and Combustion Devices.** All flares shall be designed and operated as follows:

- a. The flare shall be fired with natural ~~gas and shall be operated with a 98% VOC destruction efficiency.~~
- b. The flare shall be designed and operated in a manner that will ensure no visible emissions, ~~pursuant to the provisions of 40 CFR 60.18(f),~~ except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- c. The flare shall be operated with a flame present at all times when emissions may be vented to it, ~~pursuant to the methods specified in 40 CFR 60.18(f).~~

~~d. The flare shall comply with the specifications detailed in 40 CFR 60.18(c)(3)-(6).~~

~~e.d.~~ An automatic flame ignition system shall be installed.

~~f.e.~~ If using a pilot flame ignition system, the presence of a pilot flame shall be monitored using a thermocouple or other equivalent device to detect the presence of a flame. A pilot flame shall be maintained at all times in the flare's pilot light

burner. If the pilot flame goes out and does not relight, then if no telemetry alarm system is in place a visible alarm shall be in place on-site and activated.

~~g-f.~~ If using an electric arc ignition system, the arcing of the electric arc ignition system shall pulse continually and a device shall be installed and used to continuously monitor the electric arc ignition system.

~~h-g.~~ ~~Any flare, auto ignition system, and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.~~

3. Fugitive Emissions. The Applicant will develop and maintain a leak detection and component repair program, such as a leak detection and repair program, using most effective performance technologies and practices for equipment used on the well site for permanent operations.

4. Use of Closed Loop Pitless Systems for the Containment and/or Recycling of Drilling and Completion Fluids. Wells will be drilled, completed and operated using closed loop pitless systems for containment and/or recycling of all drilling, completion, flowback and produced fluids.

5. Green Completions. For each well completion operation with hydraulic fracturing, the Applicant must control emissions by the operational procedures set forth below.

a. For the duration of flowback, route the recovered liquids into one or more storage vessels or re-inject the recovered liquids into the well or another well, and route the recovered gas into a gas flow line or collection system, re-inject the recovered gas into the well or another well, use the recovered gas as an on-site fuel source, or use the recovered gas for another useful purpose that a purchased fuel or raw material would serve, with no direct release to the atmosphere.

b. If compliance with the prior paragraph is infeasible, the Applicant must capture and direct flowback emissions to a completion combustion device equipped with a reliable continuous ignition source over the duration of flowback, except in conditions that may result in a fire hazard or explosion, or where high heat emissions from a completion combustion device may negatively impact waterways or nearby structures. Non-flammable gas may be vented temporarily until flammable gas is encountered where capture or combustion is not feasible. ~~Completion combustion devices must be equipped with a reliable continuous ignition source over the duration of flowback.~~

c. ~~The oil and gas operation Applicants~~ must maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery / operation.

d. For wildcat or delineation wells in a location without a pipeline, each well completion operation with hydraulic fracturing at a ~~gas wellhead affected facility~~ well must reduce emissions by using a completion combustion device equipped with a reliable continuous ignition source over the duration of flowback.

e. The Applicant must maintain a log for each well completion operation at each gas wellhead affected facility. The log must be completed on a daily basis and must contain the records specified in 40 C.F.R. § 60.5420(c)(1)(iii).

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- f. The Applicant of a well must notify the Land Use Department at least 2 days prior to the commencement of ~~well drilling and~~ completion. The notification shall include contact information for the Applicant; the American Petroleum Institute (API) well number, the latitude and longitude coordinates for each well in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983; and the planned date of the beginning of drilling and completion / flowback. The notice may be submitted in writing or in electronic format.

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6. **Capture of Produced Gas from Wells.** Gas produced during production shall be captured and not flared or vented to the maximum extent practicable.

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7. **Pneumatic controllers.** The Applicant shall use only no bleed pneumatic controllers, where such controllers are available for the proposed application.

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8. **Maintenance During Well Blowdowns.** The operational plan shall require technologies or practices which minimize or eliminate natural gas emissions during well maintenance or blowdowns.

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9. **Maintenance of Gathering Lines and Pipelines.** The operational plan shall require technologies or practices which minimize or eliminate emissions or spills during maintenance of pipelines.

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~~10. Rod Packing Replacement. Operators shall replace rod packing from reciprocating compressors every 26,000 hours or 36 months, whichever comes first.~~

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~~11.10. Certification. An authorized representative for t~~The Applicant must submit annual reports to the Director certifying compliance with these air quality requirements and documenting any periods of non-compliance, including the date and duration of each deviation and a compliance plan and schedule to achieve compliance. The reports must contain a certification as to the truth, accuracy and completeness of the reports.

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B. **Emergency Response Standards.** ~~Oil and gas operations shall not cause unreasonable risks of emergency situations such as explosions, fires, gas, oil or water pipeline leaks, ruptures, hydrogen sulfide or other toxic gas or fluid emissions, and hazardous material vehicle accidents or spills.~~

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1. **In General.** Oil and gas operations shall not cause unreasonable risks of emergency situations such as explosions, fires, gas, oil or water pipeline leaks, ruptures, hydrogen sulfide or other toxic gas or fluid emissions, and hazardous material vehicle accidents or spills.

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2. **Emergency Preparedness Plan.** Each Applicant with an operation in the County is required to implement an emergency preparedness plan for each specific operation site. The plan shall be referred to and approved by the Boulder County Sheriff, the Office of Emergency Management, and the applicable fire district and filed with the County and updated on an annual basis or as conditions change (responsible field personnel change, ownership changes, etc.). The emergency preparedness plan shall consist of at least the following information:

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- a. Name, address and phone number, including 24-hour emergency numbers for at least two persons located in or near Boulder County who are responsible for emergency field operations.

- 1 b. An as-built facilities map in a format suitable for input into the County's GIS system
2 depicting the locations and type of above and below ground facilities including
3 sizes, and depths below grade of all oil and gas gathering and transmission lines and
4 associated equipment, isolation valves, surface operations and their functions, as
5 well as transportation routes to and from exploration and development sites, for
6 emergency response and management purposes. The information concerning
7 pipelines and isolation valves shall be held confidentially by the County's Office of
8 Emergency Management, and shall only be disclosed in the event of an emergency.
9 The County shall deny the right of inspection of the as-built facilities maps to the
10 public pursuant to C.R.S. § 24-72-204.
- 11
- 12 c. Detailed information addressing each potential emergency that may be associated
13 with the operation. This may include any or all of the following: explosions, fires,
14 gas, oil or water pipeline leaks or ruptures, hydrogen sulfide or other toxic gas
15 emissions, or hazardous material vehicle accidents or spills. For each potential
16 emergency, threshold / trigger levels shall be pre-identified that govern when an
17 emergency state is declared by the Applicant.
- 18
- 19 d. The plan shall include a provision that any spill outside of the containment area or
20 which has the potential to leave the facility or to threaten a water body shall be
21 reported to the emergency dispatch and the Director immediately.
- 22
- 23 e. Detailed information identifying access or evacuation routes, and health care
24 facilities anticipated to be used.
- 25
- 26 f. Project specific emergency preparedness plans are required for any project that
27 involves drilling or penetrating through known zones of hydrogen sulfide gas.
- 28
- 29 g. The plan shall include a provision that obligates the Applicant to reimburse the
30 appropriate emergency response service providers for costs incurred in connection
31 with any emergency.
- 32
- 33 h. Detailed information that the Applicant has adequate personnel, supplies, and
34 funding to implement the emergency response plan immediately at all times during
35 construction and operations.
- 36
- 37 i. The plan shall include a provision that obligates the operator to disclose to the
38 County in table format the name, CAS number, volume, storage, containment and
39 disposal method for all drilling and completion chemicals (solids, fluids, and gases)
40 used on the proposed well site. The plan shall include a provision that obligates the
41 operator/Applicant to keep on each site and immediately available current Material
42 Safety Data Sheets (MSDS) for all chemicals used or stored on a site. The MSDS
43 sheets shall be provided immediately upon request to the Director, a public safety
44 officer, or a health professional. -The plan shall include provisions that obligate the
45 Applicant to keep onsite and make immediately available to any emergency
46 responders the identification and corresponding Material Safety Data Sheets
47 (MSDS) of all materials including products used, stored or transported to the site.
48 In cases of spills or other emergency events, provisions shall include notification
49 process to emergency responders of potential materials/products they may
50 encounter including the products used in the hydraulic fracturing fluids.
- 51
- 52 i.i. The plan shall include a provision establishing a process by which the Applicant
53 engages with the surrounding neighbors to educate them on the risks and benefits

of the on-site operations and to establish a process for surrounding neighbors to communicate with the Applicant.

C. Water Quality Monitoring and Well Testing. Proposed oil and gas operations shall implement a water quality monitoring and well testing plan which establishes compliance with the criteria of this Section.

1. Abandoned Oil and Gas Well Assessment. Assessment and monitoring of plugged and abandoned and dry and abandoned oil and gas wells (abandoned wells) within one-quarter (¼) mile of the projected track of the borehole of a proposed well is required.

- a. Based upon examination of COGCC and other publicly available records, Applicants shall identify all abandoned wells located within one-quarter (¼) mile of the projected track of the borehole of a proposed well. The Applicant shall assess the risk of leaking gas or water to the ground surface or into subsurface water resources, taking into account plugging and cementing procedures described in any recompletion or plugged and abandoned (P&A) report filed with the COGCC. The Applicant shall notify the Director and COGCC of the results of the assessment of the plugging and cementing procedures.
- b. The Applicant shall contact each surface owner who has an abandoned well on their property to seek permission to access the property in order to test the abandoned well. If a surface owner has not provided permission to access after thirty (30) days notice from the Applicant, then the Applicant shall not be required to test the abandoned well. For each abandoned well for which access is granted, the Applicant shall conduct a soil gas survey of the abandoned well prior to production from the proposed well and again one (1) year and thereafter every three (3) years after production has commenced. Applicants shall submit the results of the soil gas survey to the Director and the COGCC within three (3) months of conducting the survey or advise the Director that access to the abandoned wells could not be obtained from the surface owner.

2. Water Well Sampling. Based upon records ~~from~~ of the Colorado Division of Water Resources, the Applicant will identify and offer to sample ~~all~~ water wells located within one-quarter ~~mile~~ (¼) mile of the projected track of the borehole of a proposed well as follows. The Applicant shall sample two water wells, preferably one on either side of the borehole track and in different aquifers, if where applicable, for each one quarter mile (¼) section of the borehole track. For each water well it offers to sample, the Applicant shall provide each respective surface owner with at least thirty (30) days notice and opportunity to respond to said notice to provide the Applicant permission to sample the water well. - Where more than two water well owners provide sampling permission, tThe Applicant shall test the closest two water wells to the borehole track. of the first two water well owners responding to the notice within the thirty (30) day period.- Each such test shall occur if a well owner desires the well be tested, the operator shall test the well prior to the start of heavy equipment operations setting of the conductor casing at the site. The water well testing described in this Section shall include testing for the analytes listed in Table 1.

Field observations such as damaged or unsanitary well conditions, adjacent potential pollution sources, odor, water color, sediment, bubbles, and effervescence shall also be included. The location of the water well shall be surveyed using a GPS with sub-meter resolution.

- 1 a. If free gas or a dissolved methane concentration level greater than ~~two-one~~ (21)
2 milligrams per liter (mg/l) is detected in a water well, gas compositional analysis
3 and stable isotope analysis of the methane (carbon, oxygen, and
4 deuteriumhydrogen) shall be performed to determine gas type. If the test results
5 indicate biogenic gas, no further isotopic testing shall be done. If the test results
6 indicate thermogenic or a mixture of thermogenic and biogenic gas, then the
7 Applicant shall submit to the Director and COGCC an action plan to determine the
8 source of the gas. If the methane concentration increases by more than five (5)
9 mg/l between sampling periods, or increases to more than ten (10) mg/l, the
10 Applicant shall notify the Director, the COGCC and the owner of the water well
11 immediately.
- 12
- 13 b. If BTEX and/or TPH are detected as a result of testing the Applicant will notify the
14 Director, the COGCC and the owner of the water well immediately.
- 15
- 16 c. Applicants shall use reasonable good faith efforts to conduct initial baseline testing
17 of the identified water wells prior to ~~the start of heavy equipment operations~~
18 the setting of the conductor casing at the site; however, not conducting baseline testing
19 because access to water wells cannot be obtained shall not be grounds for denial of
20 an application. Within one (1) year after completion of the proposed well, "post-
21 completion" tests shall be performed for the same analytical parameters listed
22 above and repeated three (3) and six (6) years after the completion of the well. If no
23 significant changes from the baseline have been identified after the third test (i.e.,
24 the six-year test), no further testing shall be required, although, a final well test
25 shall be conducted at time of final reclamation of oil and gas location. Additional
26 "post-completion" test(s) may be required if changes in water quality are identified
27 during follow-up testing. The Director may require further water well sampling at
28 any time in response to complaints from water well owners.
- 29
- 30 d. Copies of all test results described above shall be provided to the Director, the
31 COGCC and the water well owner within three (3) months after collecting the
32 samples. The analytical data and surveyed well locations shall also be submitted to
33 the Director and COGCC in an electronic data deliverable format.
- 34

35 **3. Qualified Independent Professional Consultant.** All abandoned well assessments and water
36 well testing required herein shall be conducted either in-house by the Applicant or, if
37 requested by a surface owner, by a qualified independent professional consultant or
38 engineer approved by the Director.

39

40 **3.4. Non-Liability.** This section shall not be interpreted to create, impute to or limit the liability
41 of Applicants for changes in the constituents and concentrations in samples from water
42 sources collected and tested pursuant to this section. The admissibility and probity of the
43 results of tests conducted pursuant to this section in an administrative or legal proceeding
44 shall be subject to existing administrative rules and rules of evidence.

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46 **D. Transportation, Roads, Access Standards, and Fees.**

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- 48 1. The Applicant's transportation plan must be designed and implemented to ensure public
49 safety and maintain quality of life for other users of the county transportation system, adjacent
50 residents, and affected property owners.
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2. Where available, existing private roads shall be used to minimize land disturbance unless traffic safety, visual or noise concerns, or other adverse surface impacts clearly dictate otherwise.
 3. Access roads on the site and access points to public roads as identified in the application materials shall be reviewed by the County Transportation Department and shall be built and maintained in accordance with the engineering specifications and access road standards defined in the Transportation Standards.
 4. All applicable transportation fees shall be paid prior to issuance of a development plan review construction permit, including without limitation:
 - a. access permit fees;
 - b. oversize/overweight permit fees;
 - c. right of way construction permit fees; and
 - d. fees to mitigate the cumulative impacts of heavy truck traffic on the county transportation system.
 - e. Oil and gas operations must minimize impacts to the physical infrastructure of the county transportation system. Any costs to improve county transportation system infrastructure necessitated by the proposed oil and gas operation shall be the responsibility of the Applicant. All transportation system infrastructure improvements and associated costs shall be determined by the County Transportation Department. The County shall perform the work or arrange for it to be performed. If the Applicant disagrees with the infrastructure improvements or associated costs as assessed by County Transportation, it may request that County Transportation approve a different route for its proposed oil and gas operation that avoids the need for such improvements. Alternatively, the Applicant may engage a licensed civil engineering firm to perform a study to independently evaluate county transportation system infrastructure improvements necessitated by the proposed oil and gas operation.
 5. If the Applicant decides to perform a traffic engineering study, whether to challenge the amount of a fee or the cost of infrastructure improvements deemed necessary by the County, the Applicant may either request the Director place the Expedited DPR application on hold until resolution of the issue or request the Director reclassify the application as a Standard DPR application.
- E. Agricultural Land Mitigation.** Oil and gas operations are to be located primarily based upon the eligibility criteria of Section 12-601(B) [and \(C\)](#). Where possible, oil and gas operations shall also be located and conducted so as to use only as much of the surface as is reasonably necessary for the operation of the facility and to avoid the unreasonable loss of agricultural land, including farm or ranch land, or any other vegetated land.
- F. Land Disturbance Standards.** The following mitigation measures shall be used to achieve compatibility and reduce land use impacts:
1. Pad dimensions of a minimum size necessary to accommodate operational needs while minimizing surface disturbance.
 2. Structures and surface equipment of the minimal size necessary to satisfy present and future operational needs.
 3. [Oil and gas operations located in a manner to achieve compatibility with the natural topography and existing vegetation.](#)

1 4. Oil and gas operations located in a manner so that there is no unnecessary or excessive site
2 disturbance and that minimizes the amount of cut and fill.

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4 5. Oil and gas operations located in a manner that minimizes disturbance to wetlands.
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8 **G. General Oil and Gas Facility Operational Requirements.** The general oil and gas facility operational
9 requirements set forth at Section 12-800 shall apply to each approved development plan in the form
10 of conditions of approval.

11
12 **H. Pipelines.** Any newly constructed or substantially modified pipelines on site must meet the
13 Additional Provisions listed at Article 4-514(E)(5)(a) – (f). Note: Any newly constructed or
14 substantially modified pipelines off site may, at discretion of the Director, need to comply with all of
15 Article 4-514(E).
16

17 **12-603 Reclassification of Expedited DPR Application to Standard** 18 **DPR Application Following Administrative Denial or Conditional** 19 **Approval**

20
21 Should the Director deny administrative approval or conditionally approve the application in a manner
22 unacceptable to the Applicant, upon written request of the Applicant the Director shall reclassify the
23 application as a standard development plan. The Applicant must pay the additional fees associated with
24 a standard application and file the additional application submittal requirements necessary for standard
25 development plan review with the County. If the Applicant fails to pay the additional fees and file the
26 additional application submittal requirements with the County within ninety (90) days after the Director's
27 determination, the application shall be deemed withdrawn. The Applicant has no right of judicial review
28 of a denied or conditionally approved expedited development plan review and must exhaust the
29 administrative remedy of processing the proposed operation through the standard development plan
30 review process as a condition precedent to judicial review pursuant to Section 12-1100.

Table 1. Water Quality Analytes	
GENERAL WATER QUALITY	Alkalinity
	Conductivity & TDS
	pH
	Dissolved Organic Carbon (or Total Organic Carbon)
	Bacteria
	Hydrogen Sulphide
MAJOR IONS	Calcium
	Chloride
	Fluoride
	Magnesium
	Potassium
	Sodium
	Sulfate
	Nitrate + Nitrite (total)
METALS	Arsenic
	Barium
	Boron
	Chromium
	Copper
	Iron
	Lead
	Manganese
	Selenium
	Strontium
VOLATILE ORGANIC COMPOUNDS	Methane
	BTEX compounds (Benzene, Toluene, Ethylbenzene, Xylene)
	Total Petroleum Hydrocarbons (TPH)
OTHER	Water Level
	Stable isotopes of water (Oxygen, Hydrogen-18 and Deuterium), carbon
	Carbon ¹³ and sulfur ³⁴ .

12-700 Standard Development Plan Review

12-701 Additional Standard DPR Application Requirements

A standard development plan review application shall contain all the general application requirements for the development plan review application at Section 12-500 plus the following assessment and mitigation plans. The assessment and mitigation plans shall be developed based upon the standards in Section 12-703 below and by reference to the Boulder County Comprehensive Plan.

- A. Cultural and Historic Resources Mitigation Plan.** A cultural, historical and archeological survey of the parcel or parcels to be used for the proposed oil and gas operation which demonstrates compliance with the standards of Section 12-703(C).
- B. Geologic Hazard Area Mitigation Plan.** A geologic hazard mitigation plan identifying hazard types and areas on the parcels demonstrating compliance with the standards of Section 12-703(E).
- C. Natural Resources Mitigation Plan.** Information demonstrating compliance with Section 12-703(G).
- D. Recreational Activity Mitigation Plan.** Information establishing any potential impacts to recreational activities by the proposed oil and gas operation and a plan demonstrating compliance with the standards of Section 12-703(H).
- E. Scenic Attributes and Rural Character Mitigation Plan.** An assessment of scenic attributes and rural character potentially impacted by the proposed oil and gas operation and a plan for mitigating said impacts in compliance with Section 12-703(I).
- F. Surrounding Land Uses Mitigation Plan** Information establishing surrounding land uses to the proposed oil and gas operation, an assessment of any potential impacts to the adjacent and near land uses, and a plan mitigating said impacts in compliance with Section 12-703(J) herein.
- G. Water Quality Plan.** A plan establishing compliance with the water quality provisions of Section 12-703(L). The plan may include details such as the Applicant's plans for water quality testing, prevention of illicit or inadvertent discharges, stormwater discharge management, containment of pollutants, and spill notification as required by federal and state agencies. The provisions of Article 12-602(C) may also be considered and used in the implementation of the plan.
- H. Wetlands Protection Plan.** Information demonstrating compliance with the standards of Section 12-703(M).

12-702 Standard DPR Process

Upon determination that an application is a standard permit review process and that the application is complete, the Director shall begin review of the application for compliance with this Article.

- A. Applicant Neighborhood Meeting.** The Applicant will be required to conduct a neighborhood meeting at a convenient public location with adjacent and surrounding land owners and other interested parties. The meeting must occur no earlier than 30 days in advance of an application being filed and must be held prior to the scheduling of the Board of County Commissioners' public hearing. The neighborhood meeting shall be noticed to the County and to all individuals entitled

1 to notice pursuant to Section 12-400(G)(2) at least ten days prior to the meeting. At the
2 neighborhood meeting, the Applicant shall provide an overview of its proposed oil and gas
3 operation and allow those in attendance to provide input as to the proposed operation, including,
4 but not limited to, well siting and well locations, issues that arise from application of this Article to
5 the proposed operation, and suggested mitigation to adequately ensure compliance with this
6 Article. A summary of the neighbor comments and any agreed upon mitigation measures shall be
7 provided with the application.
8

9 **B. Referral Agency Comments.** Following determination that an application is complete, the
10 Director shall promptly forward one copy to the County Transportation and Parks and Open
11 Space Departments; Boulder County Public Health; the appropriate fire district or County Sheriff;
12 and any appropriate municipality for comment. The Director may also refer the application to
13 other government agencies or entities for review and comment. Referral comments on the
14 proposed development shall be returned to the Director no later than thirty-five (35) days after
15 the date of application.
16

17 **C. Consultant Review.** The Director may submit the application for review and recommendation by
18 consultants retained by the County with the necessary expertise to review technical or other
19 aspects of the application. The Applicant shall be notified if the Director decides to retain a
20 consultant, shall be given the opportunity to provide input concerning consultant selection and
21 scope of work, and shall escrow funds reasonably related to the anticipated costs attendant to
22 the consultant's review. The Applicant shall be responsible for the actual costs associated with
23 this consultant review and shall be refunded any excess escrowed funds.
24

25 **D. Site Visit.** The Department will conduct a site visit for standard development plan applications to
26 allow the Director to determine compliance with these standards. When possible this site visit
27 will be coordinated with site visits required by other governmental agencies.
28

29 **E. Notice of Board of County Commissioner's Hearing.** Not less than fourteen (14) days prior to
30 the public hearing on the standard permit review, a legal notice of the public hearing before the
31 Board shall be published in a newspaper of general circulation within the County, and written
32 notice to the surface owner and adjacent property owners of the time and place of the Board's
33 public hearing shall be provided pursuant to Section 12-400(G) herein.
34

35 **F. Decision by Board of Commissioners.** The Board of Commissioners shall conduct a noticed public
36 hearing(s) for review of a standard development plan review application. Any action taken by
37 the Board of County Commissioners will be based on the entire record of proceedings on the
38 matter, as that record is maintained by the Land Use Department Director and/or the Clerk of
39 the Board of County Commissioners, including but not limited to: tape recordings or true
40 transcripts of public hearings where the proposal was discussed; all written comments of
41 referral agencies; the review and recommendations of the Land Use Department; and all
42 written commitments, statements, or evidence made or submitted by or in behalf of the
43 Applicants, landowners or interest holders or their agents, and interested members of the
44 public. The Applicant shall have the burden of proof to show that the applicable criteria for
45 approval have been met. On the basis of the evidence received at such public hearing(s), the
46 Board shall make its determination to approve, approve with conditions necessary to ensure
47 compliance with this Article, or deny the application. The Board's action shall contain
48 appropriate findings or reasons in support of its decision. The Board shall render its decision
49 on the proposed development plan in writing as soon as practical following conclusion of the
50 public hearing.
51

52 **12-703 Standard DPR Approval Standards**

1 All standard development plan review applications shall be reviewed in accordance with the following
2 standards which the Board, based upon advice of the Director, has determined to be applicable based on
3 the nature and extent of the proposed development. When two or more of the standards listed below
4 conflict, the Board, based upon advice of the Director, shall evaluate the applicability and importance of
5 each of the conflicting standards under the facts of the specific application and make a reasonable
6 attempt to balance the conflicting standards in reaching a development plan decision. The Board's
7 decision on a standard development plan review application for an oil and gas operation will be based
8 upon its compliance with all development plan standards as determined to be applicable.

9
10 **A. Agricultural Land Standards**

- 11
12 1. **Loss of Agricultural Land.** Oil and gas operations shall be located and conducted so as to
13 use only as much of the surface as is reasonably necessary for the operation of the
14 facility and to avoid the unreasonable loss of agricultural land, including farm or ranch
15 land, or any other vegetated land.
16
17 2. **Impact on Agricultural Operations.** Oil and gas operations shall be located and
18 conducted in a manner to minimize the impact to agricultural operations.
19
20 3. **Impact on Grazing.** Oil and gas operations shall be located and conducted in a manner
21 so as to not cause significant impact to livestock, grazing permits or leases, or grazing
22 permittees or lessees.
23

24 **B. Air Quality Standards.** Air emissions from the wells shall be in compliance with the permit and
25 control provisions of the Colorado Air Quality Control Program, Title 25, Section 7, C.R.S., and the
26 fugitive dust regulations administered by the Boulder County Public Health Department.
27

28 **1. General Duty to Minimize VOC Emissions.** All continuously operated equipment, including
29 but not limited to, storage vessels and tanks, separators, pneumatic pumps, dehydrators,
30 and compressors, shall route natural gas and VOC vapors to a capture or control device with
31 at least a 98% VOC destruction efficiency, to the maximum extent practicable. Applicants
32 shall submit to the County manufacture test or other data demonstrating a 98% VOC
33 destruction or control efficiency.

- 34 a. Any flare, auto ignition system, recorder, vapor recovery device or other equipment
35 used to meet the 98% VOC destruction or control efficiency requirement shall be
36 installed, calibrated, operated, and maintained in accordance with the
37 manufacturer's recommendations, instructions, and operating manuals.
38

39 **2. Flares and Combustion Devices.** All flares shall be designed and operated as follows:

- 40
41 a. The flare shall be fired with natural gas ~~and shall be operated with a 98% VOC~~
42 ~~destruction efficiency.~~
43
44 b. The flare shall be designed and operated in a manner that will ensure no visible
45 emissions, ~~as determined by 40 CFR 60.18(f),~~ except for periods not to exceed a total
46 of 5 minutes during any 2 consecutive hours.
47
48 c. The flare shall be operated with a flame present at all times when emissions may be
49 vented to it, ~~as determined by methods specified in 40 CFR 60.18(f).~~

- 50 ~~d. The flare shall comply with the specifications detailed in 40 CFR 60.18(c)(3) - (6).~~
51

- 52 ~~e-d.~~ An automatic flame ignition system shall be installed.
53

f.e. If using a pilot flame ignition system, the presence of a pilot flame shall be monitored using a thermocouple or other equivalent device to detect the presence of a flame. A pilot flame shall be maintained at all times in the flare's pilot light burner. If the pilot flame goes out and does not relight, then if no telemetry system is in place a visible alarm shall be in place on-site and activated.

g.f. If using an electric arc ignition system, the arcing of the electric arc ignition system shall pulse continually and a device shall be installed and used to continuously monitor the electric arc ignition system.

~~h.g. Any flare, auto ignition system, and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.~~

3. **Fugitive Emissions.** The Applicant will develop and maintain a leak detection and component repair program, such as a leak detection and repair program, using most effective performance technologies and practices for equipment used on the well site for permanent operations.
 4. **Certification.** An authorized representative for the Applicant must submit annual reports to the Director certifying compliance with these air quality requirements and documenting any periods of non-compliance, including the date and duration of each deviation and a compliance plan and schedule to achieve compliance. The reports must contain a certification as to the truth, accuracy and completeness of the reports.
- C. **Cultural and Historic Resources Standards.** Oil and gas operations shall not cause significant degradation of cultural or historic or archaeological resources, sites eligible for County landmarking, or the National Historic Register.
- D. **Emergency Response Standards.**
1. **In General.** Oil and gas operations shall not cause unreasonable risks of emergency situations such as explosions, fires, gas, oil or water pipeline leaks, ruptures, hydrogen sulfide or other toxic gas or fluid emissions, and hazardous material vehicle accidents or spills.
 2. **Emergency Preparedness Plan.** Each Applicant with an operation in the County is required to implement an emergency preparedness plan for each specific operation site. The plan shall be referred to and approved by the Boulder County Sheriff, the Office of Emergency Management, and the applicable fire district and filed with the County and updated on an annual basis or as conditions change (responsible field personnel change, ownership changes, etc.). The emergency preparedness plan shall consist of at least the following information:
 - a. Name, address and phone number, including 24-hour emergency numbers for at least two persons located in or near Boulder County who are responsible for emergency field operations.
 - b. An as-built facilities map in a format suitable for input into the County's GIS system depicting the locations and type of above and below ground facilities including sizes, and depths below grade of all oil and gas gathering and transmission lines and associated equipment, isolation valves, surface operations and their functions, as well

as transportation routes to and from exploration and development sites, for emergency response and management purposes. The information concerning pipelines and isolation valves shall be held confidentially by the County's Office of Emergency Management, and shall only be disclosed in the event of an emergency. The County shall deny the right of inspection of the as-built facilities maps to the public pursuant to C.R.S. § 24-72-204.

c. Detailed information addressing each potential emergency that may be associated with the operation. This may include any or all of the following: explosions, fires, gas, oil or water pipeline leaks or ruptures, hydrogen sulfide or other toxic gas emissions, or hazardous material vehicle accidents or spills. For each potential emergency, threshold / trigger levels shall be pre-identified that govern when an emergency state is declared by the Applicant.

d. The plan shall include a provision that any spill outside of the containment area or which has the potential to leave the facility or to threaten a water body shall be reported to the emergency dispatch and the Director immediately.

e. Detailed information identifying access or evacuation routes, and health care facilities anticipated to be used.

f. Project specific emergency preparedness plans are required for any project that involves drilling or penetrating through known zones of hydrogen sulfide gas.

g. The plan shall include a provision that obligates the Applicant to reimburse the appropriate emergency response service providers for costs incurred in connection with any emergency.

h. Detailed information that the Applicant has adequate personnel, supplies, and funding to implement the emergency response plan immediately at all times during construction and operations.

~~i. The plan shall include a provision that obligates the operator to disclose to the County in table format the name, CAS number, volume, storage, containment and disposal method for all drilling and completion chemicals (solids, fluids, and gases) used on the proposed well site.~~

~~—The plan shall include a provision that obligates the Applicant to keep on each site and immediately available current Material Safety Data Sheets (MSDS) for all chemicals used or stored on a site. The MSDS sheets shall be provided immediately upon request to the Director, a public safety officer, or a health professional. The plan shall include a provision requiring the Applicant to have readily available information identifying all products, including those used in hydraulic fracturing fluids, involved in an onsite or offsite spill or event requiring outside emergency providers.~~

~~—The plan shall include a provision requiring the Applicant to have readily available information onsite identifying the chemicals used in hydraulic fracturing fluids to inform, if necessary, emergency providers of the chemicals in case of a spill requiring emergency response.~~

~~i.~~

j. The plan shall include a provision establishing a process by which the Applicant engages with the surrounding neighbors to educate them on the risks and benefits of the on-site operations and to establish a process for surrounding neighbors to communicate with the Applicant.

1
2 **E. Geologic Hazard Area.** To the maximum extent practicable, oil and gas operations shall not be
3 located in geologic hazard areas as mapped in the Comprehensive Plan. If an operation is located
4 within a geologic hazard area, the Applicant shall take all reasonable actions to mitigate impacts
5 to the geologic hazard area.
6

7 **F. Land Disturbance Standards.** To the maximum extent practicable, the following mitigation
8 measures shall be used to achieve compatibility and reduce land use impacts:
9

10 1. Pad dimensions of a minimum size necessary to accommodate operational needs while
11 minimizing surface disturbance.
12

13 2. Structures and surface equipment of the minimal size necessary to satisfy present and
14 future operational needs.
15

16 3. Oil and gas operations located in a manner to achieve compatibility with the natural
17 topography and existing vegetation.
18

19 4. Oil and gas operations located in a manner so that there is no unnecessary or excessive
20 site disturbance and that minimizes the amount of cut and fill.
21

22 ~~Oil and gas operations located in a manner that minimizes the amount of cut and fill.~~

23 ~~3.5.~~ Oil and gas operations using and sharing existing infrastructure, minimizing the
24 installation of new facilities, and avoiding additional disturbance to lands in a manner
25 that reduces the introduction of significant new land use impacts to the environment,
26 landowners and natural resources.
27

28 ~~4.6.~~ Landscaping plans including drought tolerant species that are native and less desirable
29 to wildlife and suitable for the climate and soil conditions of the area. Where buffering
30 is accomplished with vegetation, an irrigation plan is required.
31

32 ~~5.7.~~ An analysis of the existing vegetation on the site establishing a baseline for re-
33 vegetation upon temporary or final reclamation or abandonment of the operation. The
34 analysis shall include a written description of the species, character and density of
35 existing vegetation on the site and a summary of the potential impacts to vegetation as
36 a result of the proposed operation. The application shall include any COGCC required
37 interim and final reclamation procedures.
38

39 **G. Natural Resource Standards.** The installation and operation of any oil and gas operation shall
40 not cause significant degradation to mapped significant natural communities, natural
41 landmarks and natural areas, rare plant areas, significant riparian corridors, or critical wildlife
42 habitat as defined in the Comprehensive Plan or identified on the site. Among other mitigation
43 measures to achieve compliance with this standard, proposed oil and gas operations shall use
44 the compatibility siting criteria of Section 12-703(J)(1) to prevent degradation of these
45 important County attributes.
46

47 **H. Recreational Activity Standards.** Oil and gas operations shall not cause significant degradation
48 to the quality and quantity of recreational activities in the County. Methods to achieve
49 compliance with this standard include, but are not limited to, locating operations away from
50 trails and from property used for recreational purposes.
51

52 **I. Scenic and Rural Character Standards.** Oil and gas operations shall not cause significant
53 degradation to the scenic attributes and rural character of Boulder County. The following

standards are methods to prevent degradation to the scenic attributes and rural character of Boulder County:

1. **Buffering from Sensitive Visual Areas.** The operation should be buffered from sensitive visual areas (i.e., roads, property lines, or residences) by providing landscaping along the perimeter of the site between the surface equipment and the sensitive visual area.
2. **Existing Vegetation.** The operation should be located in areas that maximize the amount of natural screening available for the facility. Natural screening includes, but is not limited to, the use of existing vegetation as a background, the construction of the operation near screening stands of vegetation, or placement in valleys allowing topographic screening. The operation should be constructed in a manner to minimize the removal of and damage to existing trees and vegetation. If the operation requires clearing trees or vegetation, the edges of the cleared vegetation should be feathered and thinned and the vegetation should be mowed or brush-hogged while leaving root structure intact, instead of scraping the surface.
3. **Compatibility Siting Criteria.** Use of the compatibility siting criteria of Section 12-703(J)(4) as necessary to prevent degradation to the scenic attributes and rural character of Boulder County.
4. **Low Profile.** To the maximum extent practicable, oil and gas operations should use low profile tanks or less intrusive equipment.

J. Surrounding Land Uses Standards. Oil and gas operations shall be sited and operated in a manner so that the operation is compatible with surrounding land uses to the maximum extent practicable. The following techniques or actions shall be used to achieve compatibility between the proposed oil and gas operation and surrounding land uses. Distance from surrounding land uses is a method deemed most effective to ensure compatibility between proposed oil and gas operations and existing land uses. In addition, locating the operation based upon the following site-specific characteristics will assist in creating a compatible operation:

1. Oil and gas operations shall be located as far as possible from surrounding land uses.
2. Oil and gas operations shall be sited away from prominent natural features such as distinctive rock and land forms, vegetative patterns, river and streams and other landmarks or other identified visual or scenic resources, designated environmental resources, trails, or distinctive vegetative patterns as identified in the Comprehensive Plan, or identifiable on or near the site.
3. Oil and gas operations shall be located with consideration being given to prevailing weather patterns, including wind directions to mitigate compatibility concerns.
4. Oil and gas operations shall avoid being located on or across hilltops and ridges, shall avoid silhouetting, and, where possible, should be located at the base of such slopes.
5. ~~Oil and gas operations should use acoustically insulated housing, a cover to enclose the motor or engine, or an acoustically insulated building to enclose the installation.~~

K. Transportation, Roads, Access Standards, and Fees.

1 1. The Applicant's transportation plan must be designed and implemented to ensure public
2 safety and maintain quality of life for other users of the county transportation system, adjacent
3 residents, and affected property owners.

4
5 2. Where available, existing private roads shall be used to minimize land disturbance
6 unless traffic safety, visual or noise concerns, or other adverse surface impacts clearly dictate
7 otherwise.

8
9 3. Access roads on the site and access points to public roads as identified in the application
10 materials shall be reviewed by the County Transportation Department and shall be built and
11 maintained in accordance with the engineering specifications and access road standards defined
12 in the Transportation Standards.

13
14 4. All applicable transportation fees shall be paid prior to issuance of a development plan
15 review construction permit, including without limitation:

16 a. access permit fees;
17 b. oversize/overweight permit fees;
18 c. right of way construction permit fees; and
19 d. fees to mitigate the cumulative impacts of heavy truck traffic on the county
20 transportation system.

21 e. Oil and gas operations must minimize impacts to the physical infrastructure of
22 the county transportation system. Any costs to improve county transportation system
23 infrastructure necessitated by the proposed oil and gas operation shall be the responsibility of
24 the Applicant. All transportation system infrastructure improvements and associated costs shall
25 be determined by the County Transportation Department. The County shall perform the work or
26 arrange for it to be performed. If the Applicant disagrees with the infrastructure improvements
27 or associated costs as assessed by County Transportation, it may request that County
28 Transportation approve a different route for its proposed oil and gas operation that avoids the
29 need for such improvements. Alternatively, the Applicant may engage a licensed civil
30 engineering firm to perform a study to independently evaluate county transportation system
31 infrastructure improvements necessitated by the proposed oil and gas operation.

32
33 5. If the Applicant decides to perform a traffic engineering study, whether to challenge the
34 amount of a fee or the cost of infrastructure improvements deemed necessary by the County,
35 the Applicant may either request the Director place the Expedited DPR application on hold until
36 resolution of the issue or request the Director reclassify the application as a Standard DPR
37 application.

38
39 **L. Water Quality Standards.** Oil and gas operations shall not cause significant degradation to
40 surface or ground waters within Boulder County. Methods to achieve compliance with this
41 standard include, but are not limited to, compliance with the following provisions:

42 1. The Applicant shall provide the County with the information it provides to the COGCC
43 ensuring compliance with the water quality protection standards contained in Rule
44 317(B), Rule 910, and any other applicable COGCC rules governing water quality
45 protection.

46 2. The Applicant shall comply with all COGCC Rules requiring sampling of water wells and
47 shall promptly provide the County with all water well test results.

48 3. Prior to completing or hydraulic fracturing a well, the Applicant shall identify and
49 provide notice to all water well owners with wells located within one-quarter (¼) mile of
50 the projected track of the borehole of a proposed well. The notice shall contain the
51 following provision: "Boulder County informs owners of water wells near the (name of
52 well) that in order to establish base line water well data, it would be prudent to

1 | conduct a water well test, in conformance with Boulder County Land Use Code Section
2 | 12-602(C)(2), prior to the anticipated (completion) / (hydraulic fracturing) on (date)."

- 3 | 4. The Applicant shall provide its plans concerning downhole construction details and
4 | installation practices, including casing and cementing design, and shall inform the
5 | County how the plans establish that the operation does not create significant
6 | degradation to surface or drinking water aquifers.

7 |
8 |
9 | **L.M. Wetlands Protection Standards.** Oil and gas operations shall not cause significant
10 | degradation to wetlands within Boulder County. Among other methods to achieve compliance
11 | with this standard, the proposed oil and gas operation shall not alter historic drainage patterns
12 | and/or flow rates or shall include acceptable mitigation measures to compensate for anticipated
13 | drainage impacts.

14 |
15 | **M.N. General Oil and Gas Facility Operational Requirements.** The oil and gas operations
16 | Conditions of Approval Applicable to All DPRs set forth at Section 12-800 shall apply to each
17 | approved development plan in the form of conditions of approval.

18 |
19 | **N.O. Pipelines.** Any newly constructed or substantially modified pipelines on site must meet
20 | the Additional Provisions listed at Article 4-514(E)(5)(a) – (f). Note: Any newly constructed or
21 | substantially modified pipelines off site may need to comply with all of Article 4-514(E).

12-800 Conditions of Approval Applicable to All DPRs

The following oil and gas facility operational requirements shall apply to all oil and gas operations in the form of conditions of approval applicable to each approved expedited or standard development plan review permit:

A. Anchoring. All mechanized equipment associated with oil and gas operations shall be anchored to minimize transmission of vibrations through the ground.

B. Applications and Permits. Copies of local, state and federal applications required for the operation, and permits, when issued, shall be provided to the Land Use Department.

C. Burning of Trash. No burning of trash shall occur in association with an oil and gas operation.

~~**D. Chains.** Traction chains from heavy equipment shall be removed before entering a County road.~~

~~**E.D. Color.** Facilities shall be painted in a uniform, non-contrasting, non-reflective color, to blend with the surrounding landscape and with colors that match the land rather than the sky. The color should be slightly darker than the surrounding landscape.~~

~~**F.E. Discharge Valves.** Open-ended discharge valves on all storage tanks, pipelines and other containers shall be secured where the operation site is unattended or is accessible to the general public. Open-ended discharge valves shall be placed within the interior of the tank secondary containment.~~

~~**G.F. Dust Suppression.** Dust associated with on-site activities and traffic on access roads shall be minimized throughout construction, drilling and operational activities such that there are no visible dust emissions from access roads or the site to the extent practical given wind conditions. The Applicant shall comply with Boulder County Public Health best management practices for dust suppression.~~

~~**H.G. Electrification.** All permanent operation equipment shall be electrified. All permanent operation equipment with engines or motors which can be electrified shall be electrified from the power grid or from renewable sources. The Applicant may provide information demonstrating that electrification is infeasible, or not necessary to mitigate land use impacts. The Director shall review this information and may provide a waiver of this requirement. The Director may also waive this requirement where electrification would result in significant adverse impacts to visual or environmental resources. This requirement may also be waived to allow for environmentally sensitive and efficient production techniques, -such as using natural gas on-site rather than flaring it. All well pads which are not electrically operated should use the following techniques: use of quiet design mufflers (also referred to as hospital grade or dual dissipative) or equivalent; or use of acoustically insulated housing or covers to enclose the motor or engine.~~

~~**H.H. Exhaust.** The exhaust from all engines, motors, coolers and other mechanized equipment shall be vented up or in a direction away from the closest occupied structures.~~

~~**H.I. Fencing.** Onsite fencing shall consist of -basic, two-rung fence of welded iron pipe around the well heads unless safety or agricultural concerns require additional fencing around the operation.~~

~~**H.J. Flammable Material.** Oil and gas operations shall comply with COGCC rules concerning control of fire hazards. All land near any tank, pit or other structure containing flammable or~~

- ~~combustible materials shall be kept free of dry weeds, grass, rubbish or other flammable materials.~~
- L.K. Lighting.** Except during drilling, completion or other operational activities requiring additional lighting, down-lighting is required, meaning that all bulbs must be fully shielded to prevent light emissions above a horizontal plane drawn from the bottom of the fixture. A lighting plan shall be developed to establish compliance with this provision. The lighting plan must indicate the location of all outdoor lighting on the site and any structures, and must include cut sheets (manufacturer's specifications with picture or diagram) of all proposed fixtures.
- M.L. Maintenance of Machinery.** Routine field maintenance of vehicles or mobile machinery shall not be performed within three hundred (300) feet of any water body.
- ~~**N. Vehicle Tracking Control PracticesMud Tracking.** Vehicle tracking control practices should be used to control potential sediment discharges from operational roads, well pads, and other unpaved surfaces. Practices could include road and pad design and maintenance to minimize rutting and tracking, controlling site access, street sweeping or scraping, tracking pads, wash racks, education, or other sediment controls. Traction chains from heavy equipment shall be removed before entering a County road. Operators shall take all practicable measures to ensure that vehicles do not track mud or debris onto roads. Where such tracking occurs, the road shall be cleaned immediately..~~
- O.M. Noise.** Any equipment used in drilling, completion, or production of a oil and gas operation must comply with the maximum permissible noise levels set forth at C.R.S. § 25-12-103 .
- P.N. Reclamation Plan.** Any DPR approval shall include any COGCC required interim and final reclamation procedures.
- ~~**Q.O. Removal of Debris.** Oil and gas operations shall comply with COGCC rules concerning removal of debris. When an oil and gas operation becomes operational, all construction-related debris shall be removed from the site for proper disposal. The site shall be maintained free of debris and excess materials at all times during operation.~~ Materials shall not be buried on-site.
- R.P. Removal of Equipment.** All equipment used for drilling, re-drilling and maintenance of the facility shall be removed from the site within thirty (30) days after completion of the work, unless otherwise agreed to by the surface owner. Permanent storage of equipment on well pad sites shall not be allowed.
- S.Q. Spills.** Chemical spills and releases shall be reported in accordance with applicable state and federal laws, including the Emergency Planning and Community Right To Know Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Oil and Pollution Act, and the Clean Water Act, as applicable.
- T.R. Stormwater Control Plan.** A stormwater control plan that establishes that all operations shall use most effective performance techniques and practices and best management practices to minimize impacts to surface waters from erosion, sediment, and other sources of nonpoint pollution. The stormwater control plan required by COGCC Rule 1002(f) may be provided to establish compliance with this provision.
- U.S. Temporary Access Roads.** Property subject to temporary access roads associated with oil and gas operations shall be reclaimed and re-vegetated to its original state within sixty (60) days after discontinued use of the temporary access roads.

~~V.T.~~ Transportation Permits. Applicant shall obtain all applicable transportation permits, including but not limited to County access, driveway, utility construction, and oversize and overweight permits, as well as all appropriate Colorado Department of Transportation (CDOT) access permits pursuant to the CDOT State Highway Access Code.

~~W.U.~~ Traffic Control Plan. ~~A Traffic Control Plan shall be provided to the County Transportation Department prior to facility pad construction, drill rig movement commencement of construction, mobilization, demobilization, or any other disruption of two-way traffic.~~

V. Vehicle Tracking Control Practices. Vehicle tracking control practices should be used to control potential sediment discharges from operational roads, well pads, and other unpaved surfaces. Practices could include road and pad design and maintenance to minimize rutting and tracking, controlling site access, street sweeping or scraping, tracking pads, wash racks, education, or other sediment controls. Traction chains from heavy equipment shall be removed before entering a County road.

~~X.W.~~ Weed Control. Oil and gas operations shall comply with COGCC rules concerning weed control which recommend Applicants consult with the Boulder County concerning weed control measures. The Applicant shall be responsible for ongoing weed control at all locations disturbed by oil and gas operations, pipelines, and along access roads during construction and operation, until abandonment and final reclamation is completed per County or other applicable agency regulations. The appropriate weed control methods and species to be controlled shall be determined through review and recommendation by the County Weed Coordinator by reference to the Boulder County Noxious Weed Management Plan and, where appropriate, in coordination with the requirements of the surface owner.

~~Y.X.~~ Well Abandonment. The Applicant shall comply with any COGCC rules regarding well abandonment. Upon plugging and abandonment of a well, the Applicant shall provide the County with surveyed coordinates of the abandoned well and shall leave onsite a permanent physical marker of the well location.

~~Z.Y.~~ Representations. The approved development plan review application shall be subject to all conditions and commitments of record, including verbal representations made by the Applicant, and in the application file, and without limitation shall encompass compliance with all approved mitigation plans.

12-900 Operational Conflict Waiver

A. Boulder County recognizes that the COGCC regulates oil and gas operations and that Colorado courts have determined that a County regulation must yield to a state regulation where the application of the County regulation to the oil and gas operation would conflict with a state statute, regulation or other requirement and where the conflict results in the material impediment or destruction of the state's interest in the responsible, balanced development, production and utilization of oil and gas consistent with protection of public health, safety, and welfare, including protection of the environment and wildlife resources.

B. The Applicant may make a written request to the Land Use Department for an operational conflict waiver hearing before the Board of County Commissioners at any time during the development plan review process, but no later than ten (10) days following a final decision on the development plan review application. An operational conflict waiver application shall be heard in a noticed public hearing by the Board of County Commissioners. Notice of the hearing

shall be in accordance with Section 14-400(G). The Director may extend the forty-five (45) day review process in Section 12-601(D)(1) in order to accommodate the operational conflict hearing. The hearing shall allow the Applicant the opportunity to develop a full evidentiary record concerning the alleged operational conflict between the County regulation and the state regulation. The County shall also provide notice of the hearing to the COGCC and request it to provide information to the Board relative to its position as to the alleged operational conflict. At the hearing, the Applicant shall have the burden of pleading and proving an actual operational conflict between the requirements of these regulations and those of the COGCC in the context of the specific application. If the Board determines that an operational conflict exists, it will waive the County requirement or standard to the extent necessary to negate the operational conflict. The Board may also condition the approval of the operational conflict waiver as necessary to protect the public health, safety and welfare and mitigate any adverse impacts arising from the approval. Any such condition shall be designed and enforced so that the condition itself does not operationally conflict with the requirements of the COGCC. If aggrieved by the decision of the Board on the operational conflict waiver request, the Applicant may seek review of that decision based upon the fully developed evidentiary record pursuant to Rule 106 (a)(4) of the Colorado Rules of Civil Procedure in a court of competent jurisdiction.

12-1000 Other Waivers

- A. At any time during the application process, the Director may waive one or more of these regulations if the Applicant demonstrates to the satisfaction of the County one of the following:
1. **No Economical Technology.** There is no technology commercially available at a reasonable cost to conduct the oil and gas operation in compliance with the standard(s);
 2. **Protection of Public Health, Safety, Welfare and the Environment.** Waiving the standard will not adversely affect the public health, safety, welfare and the environment; or
 3. **Alternate Approach Preferable.** Protection of public health, safety, welfare and the environment will be enhanced by an alternate approach not contemplated by the standard.

12-1100 Judicial Review

A final decision by the Board of County Commissioners on a standard development plan application or a operational conflict waiver request is subject to judicial review pursuant to Rule 106(a)(4) of the Colorado Rules of Civil Procedure.

12-1200 Procedures Following Approval of a DPR Application

- ~~A. **Financial Guarantees.** Prior to the commencement of an approved oil and gas operation, the applicant shall provide one (1) form of the following security (bond, irrevocable letter of credit or equivalent financial security acceptable to the County) to ensure compliance with this Article in an amount equal to the actual or estimated cost plus ten percent (10%) to implement the operation consistent with the requirements of this Article and ensure compliance with the issued DPR permit and any applicable conditions of approval. The amount of the financial guarantee shall be based upon a verified cost estimate of all applicable DPR permit plan requirements prepared by the applicant and approved by the Director. The Director shall have the discretion to waive the financial guarantee for specific development plan requirements based upon the past performance record of the applicant, particular circumstances of the operations, or other demonstrable circumstances making a financial guarantee unnecessary or redundant. In the~~

1 | ~~discretion of the Director, operations may be released from the performance security~~
2 | ~~requirement provided that all conditions of approval have been met and the operation is in~~
3 | ~~compliance with this Article. This Section is not meant to address COGCC permitting~~
4 | ~~requirements (including, but not limited to, COGCC reclamation requirements) nor does it~~
5 | ~~replace or duplicate the COGCC's financial assurance requirements. Operators may~~
6 | ~~request the Director approve a global bond covering all operations within Boulder County.~~

7 |
8 | **B.A. Right to Enter.** Any site under an approved development plan may be inspected by the County at
9 | any time, to ensure compliance with the requirements of the approved development plan,
10 | provided that twenty-four (24) hours prior notice is given to the contact person at the telephone
11 | number supplied by the Applicant. The Applicant shall provide the telephone number of a
12 | contact person who may be reached twenty-four (24) hours a day for purposes of being notified
13 | of any proposed County inspection under this Section. Each approved development plan shall
14 | contain the following statement: "Applicant hereby consents to allow the County the right of
15 | inspection of this approved operation provided the County contacts the Applicant with twenty-
16 | four (24) hours prior notice of such inspection." County inspections shall be coordinated with
17 | the Applicant to ensure Applicant presence onsite and to ensure the site visit is conducted in
18 | accordance with all applicable Applicant safety requirements.
19 |

20 | **C.B. Effect of the Approved Development Plan.** After approval of a development plan and following
21 | compliance with any applicable conditions of approval, the County Land Use Department shall
22 | issue a development plan review construction permit for the proposed oil and gas operation.
23 | Following receipt of the development plan review construction permit, the Applicant shall be
24 | entitled to have processed any necessary building, grading, access, floodplain, or other County
25 | permits and is authorized to otherwise proceed with the proposed oil and gas operation. The
26 | approval of a development plan review under this Article does not result in the vesting of
27 | development rights, nor does authorize the violation of any County or state regulations or
28 | preclude the County from refusing to issue any other permit or authorization if the plans and
29 | specifications do not comply with applicable County regulations.
30 |

31 | **D.C. Duration of the Approved Development Plan.** An approved development plan shall remain
32 | effective for a period of three (3) calendar years following the date of final plan approval. If the
33 | operation is not commenced within the effective period of the development plan, the permit
34 | shall expire and the Applicant will have to reapply for a new permit prior to undertaking
35 | operations.
36 |

37 | **E.D. Amendments to Approved Development Plan.** Any proposal to change an approved
38 | development plan shall require an application to the Land Use Department to determine
39 | whether the proposed change constitutes a substantial modification to the approved
40 | development plan.
41 |

- 42 | 1. In determining whether the proposed modification to a development plan approval is
43 | substantial, the Director shall consider the record of the development plan approval,
44 | including any express conditions, limitations, or agreements governing the approved
45 | development plan, in addition to the nature, character, and the extent of additional land use
46 | impacts of the proposed modification. The addition of a new well on an existing pad shall be
47 | considered a substantial modification to the entire pad and the entire pad shall be required
48 | to come into compliance with this Article, to the extent practical. Other changes shall be
49 | considered substantial if they significantly alter the nature, character, or extent of the land
50 | use impacts of the development plan approval.
51 |
- 52 | 2. If the Director determines that the change constitutes a substantial modification, no such
53 | change shall be allowed to proceed until an application to amend the approved

development plan, which shall be treated as a new application, is filed with the Director and approval granted in accordance with this Article. The Applicant or its successor may appeal the Director's decision to require an amended development plan to the Board of County Commissioners, provided that any such appeal shall be in writing and shall be filed with the Director no later than thirty (30) days following the date of the Director's decision to require a development plan amendment. Any Board of County Commissioner's determination on an appeal shall not be considered a final decision subject to judicial review under Section 12-1100.

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12-1300 Enforcement

If the County determines at any time that there is a violation of an approved development plan permit, the Director shall be entitled to commence one or more of the following enforcement measures and remedies.

A. Written Order Suspending Development Plan. The Director may issue a written order to the Applicant (or owner, operator, or agent, as applicable) identifying the violation and suspending the approved development plan and all activity otherwise allowed by the development plan. If the violation presents an immediate threat to the health, safety or welfare of the public, the Director may immediately issue the written order to the Applicant in writing and, upon receipt, the Applicant shall cease all activities and operations immediately until the violation is remedied. In all other instances, prior to issuing a written order, the Director shall provide written notice to the Applicant describing the violation, and stating a reasonable time within which the violation must be corrected. If, within that time period, the Applicant has not either corrected the violation or filed a written appeal with the Board of County Commissioners, the written order shall be delivered to the Applicant in writing and, upon receipt, the Applicant shall cease all activities and operations immediately until the violation is remedied. Any appeal to the Board of County Commissioners of the threatened or actual issuance of the written order shall be acted upon pursuant to Section 12-1300(~~CB~~) below.

~~Draw Against Financial Guarantee. The Director may draw upon any financial guarantee provided by an applicant to enforce the provisions of this Article. Prior to drawing upon a financial guarantee, the Director shall provide written notice to the applicant describing the violation, and stating a reasonable time within which the violation must be corrected. If, within that time period, the applicant has not either corrected the violation or filed a written appeal with the Board of County Commissioners, the Director shall be entitled to enter upon the site to take any reasonable measures to correct the violation, and may draw on the financial guarantee to cover the costs of corrective measures.~~

B. Appeal Hearing Before Board of County Commissioners. If the Applicant files a timely appeal with the Board of County Commissioners of the Director's determination to issue a written order suspending the development plan ~~or to draw upon a financial guarantee~~, the Board shall schedule a hearing on the appeal at the soonest possible time of which the Applicant shall receive reasonable prior notice. If the Board confirms at the hearing that the violation has occurred and has not been corrected, the Board in its discretion may confirm issuance of a written order suspending the development plan or the determination to draw upon the financial guarantee. The Board, in its discretion, may also give the Applicant additional time to correct the violation, or may specify the time at which the Director may take appropriate action to have the violation corrected ~~and draw on the financial guarantee to cover the costs of corrective measures.~~

~~Timing of Release of Financial Guarantees. To insure the Director's ability to enforce the provisions of any approved development plan, the Director shall not release any financial guarantee provided under this Article for an individual development plan, until the Director confirms that all operations have been completed and all provisions of the plan complied with.~~

C. Other Enforcement Remedies. In addition to the foregoing enforcement measures, Boulder County has the right to any and all other enforcement measures and remedies provided by law, including but not limited to seeking relief through the courts to enforce an approved development plan review, or to stop or abate any oil and gas operations occurring or about to occur without the requisite development plan or other county approvals.

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.

Abandonment. The permanent abandonment of a well, which shall be determined at the time of the Applicant's filing of the appropriate abandonment form with the COGCC.

Agent. One authorized to make binding representations on behalf of the Applicant.

Adverse Effect or Adverse Impact. The impact of an action, after mitigation, that is considerable or substantial, and unfavorable or harmful, including social, economic, physical, health, aesthetic, historical and/or biological impacts, including but not limited to, effects on natural resources, the structure or function of affected ecosystems, or persons, structures or communities.

Applicant. Person, corporation or other legal entity possessing the legal right to develop the mineral resource who has applied for an oil and gas operation permit.

BTEX and/or TPH. Benzene, Toluene, Ethylbenzene, Xylene and Total Petroleum Hydrocarbons.

Chemical(s). Any element, chemical compound or mixture of elements and/or compounds.

Closed Loop Drilling Process or System. A closed loop mud drilling system typically consists of steel tanks for mud mixing and storage, and the use of solids removal equipment, which normally includes some combination of shale shakers, mud cleaners and centrifuges sitting on top of the mud tanks. This equipment separates drill cutting solids from the mud stream coming out of the wellbore while retaining the water or fluid portion to be reused in the continued drilling of the well bore. The solids are placed in containment provided on the site. The system differs from conventional drilling where a reserve pit is used to allow gravitational settling of the solids from the mud which can then be reused. A Closed Loop Drilling System does not include use of a Conventional Reserve Drilling Pit.

COGCC. The Colorado Oil and Gas Conservation Commission.

Completion combustion device. Any ignition device, installed horizontally or vertically, used in exploration and production operations to combust otherwise vented emissions from completions.

Corridor. Tracts of land within which a pipeline right-of-way is located.

County. Boulder County, Colorado, and its officers, staff, employees and agents.

Degradation. Lowering in grade or desirability; lessening in quality.

Delineation well. A well drilled in order to determine the boundary of a field or producing reservoir.

Department. Boulder County Land Use Department.

Drilling Operation. Any work or actual operation undertaken for the purposes of carrying out any of the rights, privileges or duties of a lessee for drilling of an oil well, gas well, or cathodic protection well, including but not limited to the actual operation of drilling in the ground.

Equipment. Machinery or structures located on well pads, rights-of-way, or other land uses in the oil and gas operation, including, but not limited to, wellheads, separators, dehydration units, heaters, meters, storage tanks, compressors, pumping units, internal combustion engines, and electric motors.

Exploration and Production Waste or "E and P Waste": Wastes associated with oil and gas operations to locate or remove oil or gas from the ground or to remove impurities from such substances and that 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 (RCRA).

Flow Line. Pipeline connecting individual well sites to gathering lines.

Gas Well. Well capable of producing natural gas.

Gathering Line. Pipeline transporting produced gas, oil, or water from multiple well sites to a centralized facility.

Grading Plan. Plan view and cross-section of existing and proposed land contours, cuts and fills, topsoil storage location and stabilization methods, and maximum slopes.

Ground Water. Subsurface waters in a zone of saturation.

Heavy Equipment. Drilling rigs, completion rigs, construction equipment, and individual truck/trailer combination vehicles with a gross vehicle weight exceeding five tons.

Improvement. Any new construction activity, grading or land development, or addition of equipment or materials to a site.

Mitigation. One or more of the following actions which are prioritized in order of preference:

Avoiding Impacts. Avoiding an impact by not taking a certain action or parts of an action; or

Minimizing Impacts. Limiting the degree or magnitude of the action or its implementation, or by changing its location; or

Rectifying or Remediating Impacts. Repairing, rehabilitating, or restoring the impact area, facility or service; or

Reducing or Eliminating Impacts. Decreasing or removing the impact over time by preservation and maintenance operations; and

Other Provisions for Addressing Impacts. Using alternative means not contemplated by this Article to provide equivalent biological, social, environmental and/or physical mitigation effects.

Most Effective Performance Techniques and Practices. The application of proven and emerging techniques, technologies or other Best Management Practices used in conducting oil and gas exploration and development which avoid, neutralize, exclude, eliminate, mitigate or minimize adverse on and off-site impacts to public health and the environment, landowners, and natural resources, and which may reduce conflicts between potentially impacted landowners and the oil and gas industry.

1 **Occupied Structure.** Any building or structure that requires a certificate of occupancy or building or
2 structure intended for human occupancy.

3
4 **Oil and Gas Facilities.**

5
6 The site and associated equipment used for the production, transportation, treatment, and/or
7 storage of oil and gas and waste products; or

8
9 An individual well pad built with one or more wells and operated to produce liquid petroleum
10 and/or natural gas, including associated equipment required for such production; or

11
12 Gathering lines, and ancillary equipment including but not limited to drip stations, vent stations,
13 pigging facilities, chemical injection stations and valve boxes; or

14
15 Temporary storage and construction staging yards in place for less than six months; or

16
17 Any other oil and gas operation which may cause significant degradation.

18
19 **Oil and Gas Operations.** Exploration for oil or gas, including but not limited to conventional oil and gas;
20 the siting, drilling, deepening, recompletion, reworking, refracturing, closure or abandonment of an oil
21 and gas well; oil and gas facilities; construction, site preparation, reclamation and related activities
22 associated with the development of oil and gas resources.

23
24 **Oil Well.** Well capable of producing crude petroleum oil.

25
26 **Operation.** Oil and Gas Operations.

27
28 **Owner or Operator.** Person who has the right to drill into and produce from a pool and to appropriate
29 the oil or gas produced either for such owner or operator or others.

30
31 **Permanent Equipment.** Equipment located onsite for a duration greater than six months effective one
32 year after the drilling and completion of a well.

33
34 **Person.** Any individual, partnership, corporation, association, company, or other public or corporate
35 entity, including but not limited to the State or Federal governments, and any of their political
36 subdivisions, agencies, or instrumentalities.

37
38 **Pit.** Any natural or man-made depression in the ground used for oil or gas exploration or production
39 purposes excluding steel, fiberglass, concrete or other similar vessels which do not release their contents
40 to surrounding soils.

41
42 **Platted Building Envelope.** Area of subdivided land within a buildable lot within which all site structures,
43 buildings and other hardscape elements shall be contained, except driveways.

44
45 **Regulation(s).** Article 12 of the Boulder County Land Use Code.

46
47 **Referral Agency.** An agency, organization, or technical consultant deemed appropriate and necessary, by
48 the County, to review an application and provide professional analysis and recommendations, including
49 without limitation other County offices and departments, municipal, state, or federal agencies having an
50 interest in or authority over all or part of the application or permit, and professional or legal consultants.

1 **Residential.** All property within unincorporated Boulder County, Colorado.

2
3 **Right-Of-Way.** The legal right to pass through grounds or property owned by another, or land, property
4 or interest therein, usually in a strip, acquired for or devoted to transportation or conveyance purposes.

5
6 **Security Fencing.** Six-foot chain link fence topped by three strands of barbed wire, or the equivalent, with
7 a gate that can be secured.

8
9 **Setback.** Distance between the following, including but not limited to, a wellhead, intermediate line,
10 gathering line or major facility structure boundary, and the closest projection of a residential, commercial,
11 or industrial building structure, a lot or property line, a permitted facility, or a platted building envelope in
12 a platted subdivision-

13
14 **Site.** Lands, including the surface of a severed mineral estate, on which exploration for, or extraction and
15 removal of, oil or gas is authorized under a lease.

16
17 **Surface Owner.** Owner of the surface property on which the facility will be located or constructed.

18
19 **Surrounding.** Within one-half mile of a proposed oil and gas operation.

20
21 **Temporary Use Area.** Disturbed lands immediately adjacent to the well pad or right of way used by an
22 Applicant during the construction or maintenance of a well, pipeline or other facility that will be reclaimed
23 for permanent operations.

24
25 **Transmission Line.** Pipeline transporting oil, natural gas or any other products derived from oil and gas
26 production, which is defined as a transmission line by the U.S. Department of Transportation regulations
27 under the Natural Gas Pipeline Safety Act of 1968, as amended.

28
29 **VOC.** Volatile organic compounds.

30
31 **Water or Water Body.** Any surface waters which are contained in or flow in or through Boulder County,
32 excluding ephemeral streams, roadway ditches, water in sewage systems, water in treatment works of
33 disposal systems, water in potable water distribution systems, stock ponds or irrigation ditches not
34 discharging to live streams, and all water withdrawn for use until use and treatment have been
35 completed.

36
37 **Well or Wellhead.** Equipment attached to the casing of an oil, gas or injection well above the surface of
38 the ground.

39
40 **Well Blowdown.** Maintenance activity designed to remove unwanted fluids from mature wells during
41 which time gas is often vented to the atmosphere.

42
43 **Well Completion.** The process that perforates well casing, stimulates the reservoir using various
44 techniques including but not limited to acid treatment and hydraulic fracturing, allows for the flowback of
45 petroleum or natural gas from wells to expel drilling and reservoir fluids, and tests the reservoir flow
46 characteristics, which may vent produced hydrocarbons to the atmosphere via an open pit or tank.

47
48 **Well Pad.** Area in which permanent operations for the well take place including, at a minimum, that
49 portion of the pad area occupied by permanent production equipment. Well pads may contain one or
50 more wellheads and associated equipment.

- 1 **Wildcat or Delineation Well.** A well outside known fields or the first well drilled in an oil or gas field
- 2 where no other oil and gas production exists.
- 3

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ATTACHMENT A.2

Proposed Amendments to Article 4-500 (use definitions)

1. Amend Article 4-506 Industrial Uses to add new use category:

D. Major Oil and Gas Operations

1. Definition: Water injection wells and facilities, centralized water transfer stations, centralized water pump stations, storage yards and construction staging yards in place for longer than six months, and any other oil and gas operation the location of which is not dependent upon development of the mineral resource or subject to Article 12.
2. Districts Permitted: By Special Review in GI
3. Parking Requirements: None
4. Loading Requirements: None
5. Additional Provisions: None

Re-order remaining items and update cross-references as needed.

2. Amend Article 4-508 Mining Uses by deleting current Sections 4-508(B) and 4-508(C) and replacing with new Section 4-508(B):

B. Oil and Gas Operations

1. Definition: See Article 12-1400
2. Districts Permitted: By development plan review for oil and gas operations in all districts (Article 12)
3. Parking Requirements: None
4. Loading Requirements: None
5. Additional Provisions: None

Re-order remaining items and update cross-references as needed.

3. Amend Article 4-514 Utility and Public Service Uses:

Add a new use "Gas and/or Hazardous Liquid Pipelines":

E. Gas and/or Hazardous Liquid Pipelines

1. Definition: Pipelines for the collection and transmission of natural gas or other hazardous liquids.
2. Districts Permitted: In all districts by Limited Impact Special Review, or review under Article 8 (areas and activities of state interest), as applicable. Gathering lines and flow lines which are part of new oil and gas development and which are located on the same parcel or parcels as the well head, pumping units, tanks and/or treaters will be subject to Development Plan Review under Article 12 of this Code.
3. Parking Requirements: None
4. Loading Requirements: None
5. Additional Provisions:
 - a. This use is not required to be located on a building lot, or comply with the minimum lot size requirement for the district in which it is located.
 - b. Flow lines, gathering lines, and transmission lines shall be buried and shall be sited a minimum of fifty (50) feet away from general residential, commercial, and industrial buildings, as well as the high-water mark of any surface water

body. This distance shall be measured from the nearest edge of the pipeline. Pipelines and gathering lines that pass within 150 feet of general residential, commercial, and industrial buildings or the high water mark of any surface water body shall incorporate leak detection, secondary containment, or other mitigation, as appropriate.

- c. To the maximum extent practicable, pipelines should be aligned with established roads in order to minimize surface impacts and reduce habitat fragmentation and disturbance.
- d. To the maximum extent practicable, Applicants shall share existing pipeline rights-of-way and consolidate new corridors for pipeline rights-of-way to minimize surface impacts.
- e. Applicants shall use boring technology or alternative director-approved most effective performance techniques and practices when crossing streams, rivers or irrigation ditches with a pipeline to minimize negative impacts to the channel, bank, and riparian areas.
- f. During pipeline construction for trenches that are left open for more than five (5) days and are greater than five (5) feet in width, install wildlife crossovers and escape ramps where the trench crosses well-defined game trails and at a minimum of one-quarter (1/4) mile intervals where the trench parallels well-defined game trails.
- g. The Department may require an Applicant for a pipeline to provide a risk-based engineering study for all or part of its proposed pipeline right of way that may require the implementation of more stringent construction or operation standards or space between the pipeline and other structures.

Re-order remaining items and update cross-references as needed.

Modify current section 4-514(P) "Utility Service Facility" as follows:

- P. Utility Service Facility
 1. Definition: Any electrical distribution lines, natural gas distribution lines, minor gas regulator stations, cable television lines, telegraph and telephone lines, ~~and gathering lines,~~ or other minor service facilities.
 2. Districts Permitted: By right in all districts
 3. Parking Requirements: None
 4. Loading Requirements: None
 5. Additional Provisions:
 - a. This use is not required to be located on a building lot, or comply with the minimum lot size requirement for the district in which it is located.
 - b. No buildings shall be associated with this use.
 - c. This use is limited to the following sizes:
 - i. gas lines less than 12 inches; and
 - ii. electric lines of less than 115,000 volts.

ATTACHMENT A.3

Proposed Amendment to Board of Adjustment provisions

Add New Section 4-1205 as follows:

No appeals to the Board of Adjustment or requests for variances before the Board of Adjustment are permitted for any matters under Article 12, Development Plan Review for Oil and Gas Operations.

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ATTACHMENT A.4

Proposed Amendments to Article 18 (Land Use Code Definitions)

1. Replace current text of 18-181 with the following:

“Oil and Gas Operations. Exploration for oil or gas, including but not limited to conventional oil and gas; the siting, drilling, deepening, recompletion, reworking, refracturing, closure or abandonment of an oil and gas well; production facility and operations including the installation of flow lines and gathering lines; construction, site preparation, reclamation and related activities associated with the development of oil and gas resources.”

2. Delete 18-196 “Site (Oil & Gas)” due to new definition of same in Article 12.
3. Amend any other definitions as necessary (e.g., 18-166 “Gas Transmission Pipeline”).



ATTACHMENT A.5

Clerical changes necessary to conform rest of Land Use Code to DC-12-0003

1. Delete Article 4-900 (current “Development Plan review for Oil and Gas Operations”)
2. Update Table of Contents and associated cross-references in Code as necessary.
3. Update use tables as necessary.
4. In all of the Article 4 zoning district regulations, for each district, under the listed Mining Uses: substitute “Oil and Gas Operations” for the two uses currently listed (Oil and Gas Drilling and Production, on subdivided land, and Oil and Gas Drilling and Production, on unsubdivided land).
5. Make current Article 4-900A (“Development Plan Review for Subsurface Mining”), Article 4-900. Change Table of Contents and associated cross-references in Code accordingly.
6. All other clerical amendments necessary to conform entire Land Use Code to primary text amendments approved in DC-12-0003 (Article 12, etc.).

Attachment B1 Development Plan Review as Proposed in Draft Regulations with 350' Occupied Building and 300' Surface Water Setback

Area Eligibility for Expedited Review

-  Eligible. 15,591 acres (48%)
-  Not Eligible. 16,746 acres (52%)

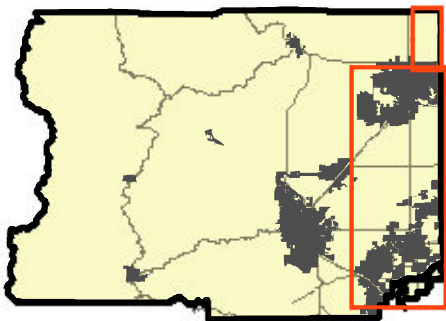
Production Well Sites

- Within Area Eligible for Expedited Review. 153 (70%).
- × Not Within Area Eligible for Expedited Review. 66 (30%)

Siting Criteria

- 350' from occupied structures
- 300' from surface water
- 500' from water wells
- Not within platted subdivisions - excluding NUPUD outlots
- Not within floodway

-  Wattenberg Field
-  Municipalities



0 6,000
Feet
1 inch = 6,000 feet
1 inch = 2,000 yards



*This map is for
illustrated purposes
only, it is not proposed
as a regulatory map.*

Attachment B2 Development Plan Review as Proposed in Draft Regulations with 350' Occupied Building Setback

Area Eligibility for Expedited Review

 Eligible. 12,319 acres
(38%)

 Not Eligible. 20,017
acres (62%)

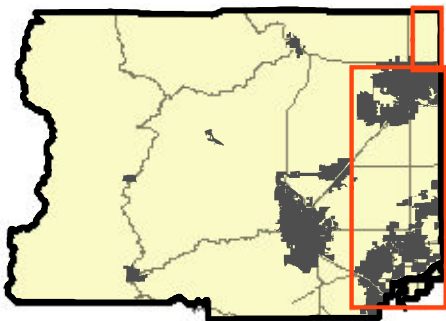
Production Well Sites

- Within Area Eligible for Expedited Review. 117 (53%).
- × Not Within Area Eligible for Expedited Review. 102 (47%)

Siting Criteria

350' from occupied structures
500' from surface water
500' from water wells
Not within platted subdivisions - excluding
NUPUD outlots
Not within floodway

 Wattenberg Field
 Municipalities




0 6,000
Feet
1 inch = 6,000 feet
1 inch = 2,000 yards



*This map is for
illustrated purposes
only, it is not proposed
as a regulatory map.*

Attachment B3 Development Plan Review as Proposed in Draft Regulations with 500' Occupied Building Setback

Area Eligibility for Expedited Review

 Eligible. 10,900 acres
(34%)

 Not Eligible. 21,437
acres (66%)

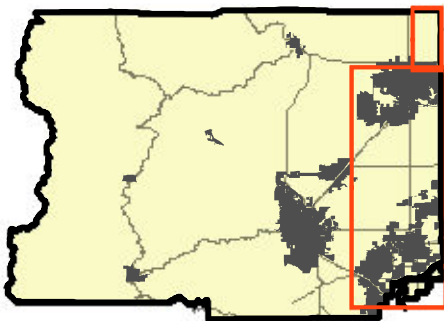
Production Well Sites

- Within Area Eligible for Expedited Review. 105 (48%).
- × Not Within Area Eligible for Expedited Review. 114 (52%)

Siting Criteria

500' from occupied structures
500' from surface water
500' from water wells
Not within platted subdivisions - excluding NUPUD outlots
Not within floodway

 Wattenberg Field
 Municipalities





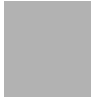
0 6,000
Feet
1 inch = 6,000 feet
1 inch = 2,000 yards



*This map is for
illustrated purposes
only, it is not proposed
as a regulatory map.*

Attachment B4 Development Plan Review as Proposed in Draft Regulations with 750' Occupied Building Setback

Area Eligibility for Expedited Review

-  Eligible. 8,698 acres (27%)
-  Not Eligible due to 250' increase in Occupied Structure setback. 2,202 acres (7%)
-  Not Eligible. 21,437 (66%)

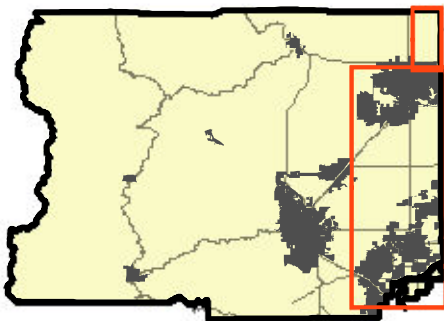
Production Well Sites

- Within Area Eligible for Expedited Review. 80 (37%)
- × Not Within Area Eligible for Expedited Review. 139 (63%)

Siting Criteria

- 750' from occupied structures
- 500' from surface water
- 500' from water wells
- Not within platted subdivisions - excluding NUPUD outlots
- Not within floodway

-  Wattenberg Field
-  Municipalities






0 6,000
1 inch = 6,000 feet
1 inch = 2,000 yards



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Attachment B5 Development Plan Review as Proposed in Draft Regulations with 1000' Occupied Building Setback

Area Eligibility for Expedited Review

-  Eligible. 6,758 acres (21%)
-  Not Eligible due to 500' increase in Occupied Structure setback. 4,141 acres (13%)
-  Not Eligible. 21,437 (66%)

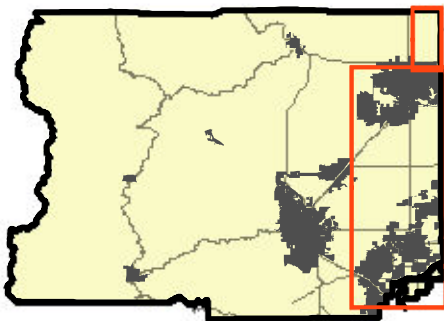
Production Well Sites

- Within Area Eligible for Expedited Review. 54 (25%)
- × Not Within Area Eligible for Expedited Review. 165 (75%)

Siting Criteria

- 1000' from occupied structures
- 500' from surface water
- 500' from water wells
- Not within platted subdivisions - excluding NUPUD outlots
- Not within floodway

-  Wattenberg Field
-  Municipalities






0 6,000
1 inch = 6,000 feet
1 inch = 2,000 yards



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Attachment B6 Development Plan Review as Proposed in Draft Regulations

Area Eligibility for Expedited Review

-  **New and Existing Well Sites Eligible. 6,758 acres (21%)**
-  **Only Existing Well Sites Eligible. 8,833 acres (27%)**
-  **Not Eligible. 16,746 (52%)**

Production Well Sites

- **Within Area Eligible for Expedited Review. 153 (70%)**
- × **Not Within Area Eligible for Expedited Review. 66 (30%)**

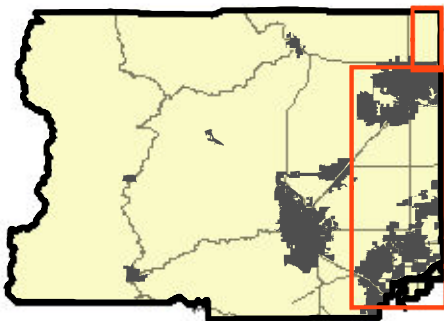
Siting Criteria for New Well Sites

1000' from occupied structures
500' from surface water
500' from water wells
Not within platted subdivisions - excluding NUPUD outlots
Not within floodway

Siting Criteria for Existing Well Sites

350' from occupied structures
300' from surface water
500' from water wells
Not within platted subdivisions - excluding NUPUD outlots
Not within floodway

-  **Wattenberg Field**
-  **Municipalities**



0 6,000
1 inch = 6,000 feet
1 inch = 2,000 yards



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BEATTY & WOZNIAK, P.C.

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SALT LAKE CITY

SANTA FE

JAMIE L. JOST

DIRECT: (303) 407-4458

E-MAIL: JJOST@BWENERGYLAW.COM

November 28, 2012

VIA EMAIL

Jeffrey P. Robbins
Goldman, Robbins & Nicholson, P.C.
679 E. 2nd Avenue, Suite C
P.O. Box 2270
Durango, CO 81302

Re: Impact of Boulder County Oil and Gas Regulations

Dear Jeff:

For purposes of consideration regarding Boulder County's proposed setbacks, Encana has analyzed its Boulder County development locations. Of the Boulder County locations, included below are the number of wells that fall within the 350', 500' and 1000' setbacks from existing structures and future planned subdivisions. The term "impacted" relates to being subject to conditions of approval (COA) as imposed by Boulder County permitting processes.

The breakdown of the pads and wells are as follows:

Encana has 19 horizontal drill pads with a well count of 92 proposed horizontal wells:

HZ wells subject to <350' setbacks = 15 = 16.3% impacted
HZ wells subject to <500' setbacks = 37 = 40.22% impacted * (15 @ 350' + 22 @ 500')
*Note: wells that fall within the 500' setbacks include the 350' wells
HZ wells subject to <1000' setbacks = 92 = 100.0% impacted.

Encana has 21 vertical pads with a well count of 112 vertical wells:

Vertical wells subject to <350' setbacks = 18 = 16.07% impacted
Vertical wells subject to <500' setback = 25 = 22.32% impacted *(18 @ 350' + 7 @ 500')
Vertical wells subject to <1000' setbacks = 99 = 88.39% impacted
Vertical wells not subject to setbacks (> 1000') = 13 = 11.61% with no impact.

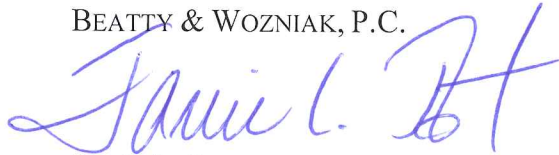
As you can see, all setbacks increases have an impact on the number of wells that Encana will be able to drill with the most substantial effects being that a 1000' setback will impact 100% of

November 28, 2012
Page 2

Encana's horizontal well program in Boulder County. I have also attached two maps illustrating these numbers.

Very truly yours,

BEATTY & WOZNIAK, P.C.

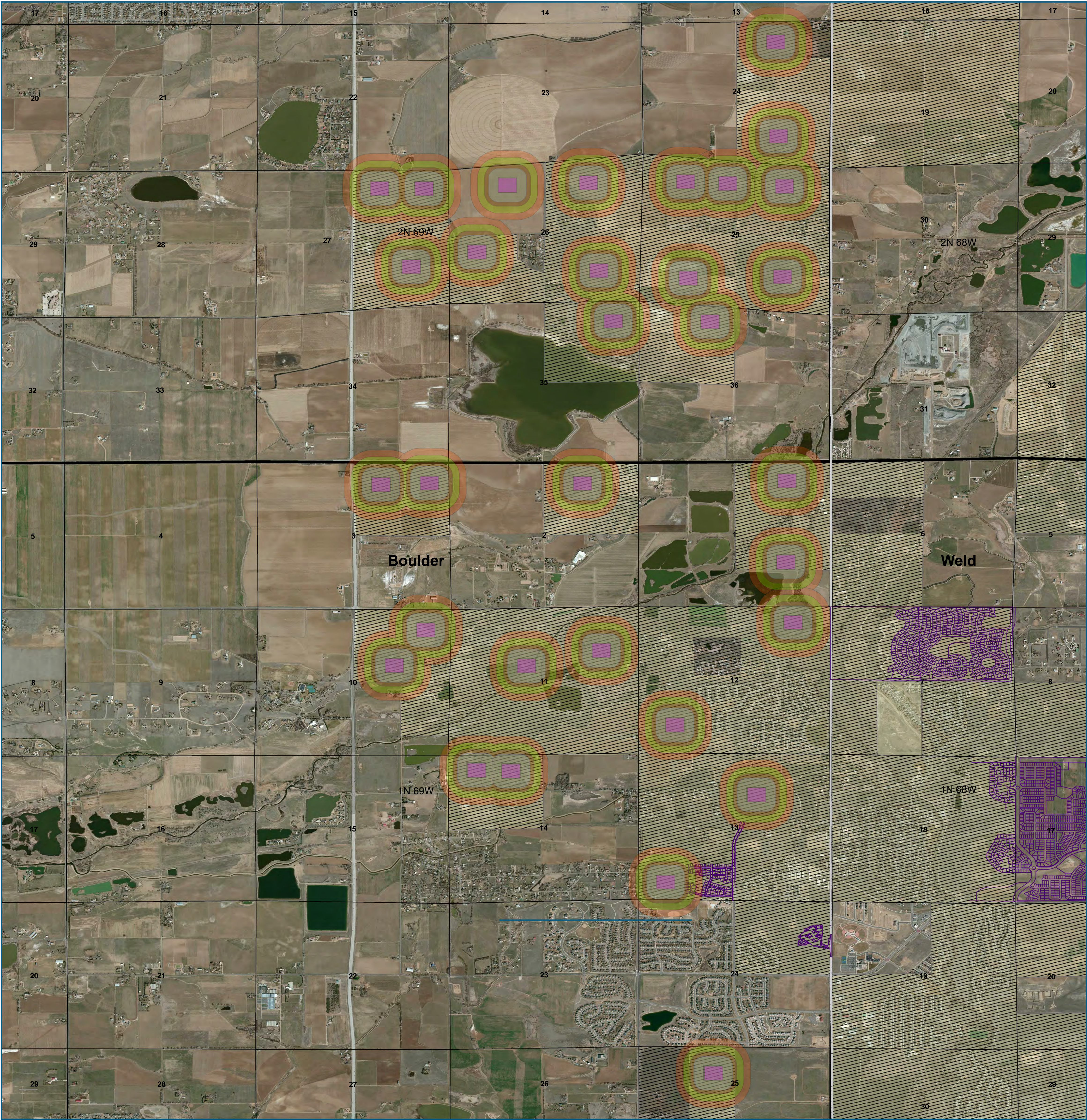
A handwritten signature in blue ink, appearing to read "Jamie L. Jost", with a stylized flourish at the end.

Jamie L. Jost

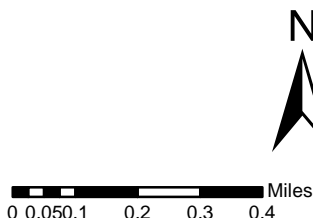
Enclosures

LEGEND







- SURFACE LOCATIONS
- 350' BUFFER
- 500' BUFFER
- 750' BUFFER
- 1000' BUFFER
- ECA_CODELL NIOBRARA ACREAGE
- ECA_J SAND ACREAGE
- COUNTIES



Encana Oil & Gas (USA) Inc.
370 17th Street, Suite 1700
Denver, CO USA 80202
Map by KJSchandel 11.26.12
www.encana.com



LEGEND

-  SURFACE LOCATIONS
-  350' BUFFER
-  500' BUFFER
-  750' BUFFER
-  1000' BUFFER
-  COUNTIES

