Discussion Draft 4/5/21

This initial discussion draft includes new language that addresses land use and locational related topics, such as setbacks, siting analysis, alternative locational analysis, and zone district limitations. These topics will be open for discussion at the public workshop on 4/8/21.

The following materials include:

- Article 2.9.4 Setbacks (see red-lined text for potential language related to reciprocal setbacks),
- Article 6.4.3 Special Review (Current process use for new oil and gas applications), and
- Article 11.0 Oil and Gas Regulations (see red-lined text for potential language related to siting and other locational topics)

Future discussion drafts will address new topics related to public health, safety and welfare including the environment and wildlife resources, as well as compliance standards and fees.

Please visit https://www.larimer.org/planning/luc2020/phase-ii-larimer-county-land-use-code/oil-gas-regulations-phase-ii-update for future meeting topics and to register for future public workshops.

Article 2.9.4 Setbacks

2.9.4. Setbacks

A. Setback Measurement

- 1. Setbacks shall be measured from the lot line, nearest edge of the road easement, nearest edge of right-of-way, or nearest edge of traveled way, whichever is greater.
- 2. The applicable street and road setback apply to both sides of a street or road adjacent to a lot or that goes through a lot. When an applicable side or rear setback exceeds the street or road setback, the greater setback applies.
- **3.** Setbacks do not apply to streets or roads that are used for internal circulation in multifamily, commercial, or industrial developments.
- **4.** No part of any structure may extend into or above any easement.

B. Setbacks for Attached Buildings

For buildings where multiple dwellings or businesses share a common wall, only the outside walls of the end units shall comply with applicable setback requirements.

C. Double-Frontage Lots

In the case of double-frontage lots, front setbacks shall apply to all frontages. See Figure 2-1,

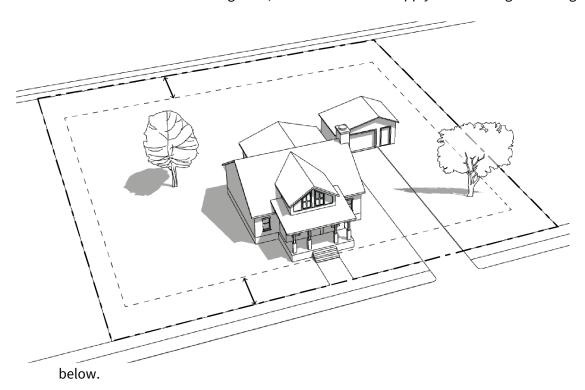


Figure 2-1: Double-Frontage Lot

D. Setbacks for Detached Accessory Buildings 200 Square Feet in Area or Less

- 1. Detached accessory buildings may be placed within the rear or side setbacks of a lot subject to the following requirements:
 - **a.** All elements of the accessory building (including eaves and decorative features) shall maintain a distance of five feet from all lot lines;
 - **b.** All other required setbacks, including those listed in §E and §F below, are met;
 - **c.** The building is not on a permanent foundation;
 - **d.** The height shall not exceed one story;
 - **e.** The building is not used for any type of commercial or residential purpose;
 - f. No part of any building may extend into or above any easement; and
- 2. Where a building envelope is applicable, an accessory building may only be located outside of the building envelope when defined by the approval of a specific development approval condition.

E. Setbacks from All Roads, Streets, and Highways

Setbacks from specific road types are listed below. For all other road types not listed below, setback requirements are set forth in §§2.2 through 2.5 for each zoning district. In all cases, all structures shall be located outside of any existing right-of-way.

1. Highways

Setbacks from state and federal highways are 100 feet from the right-of-way centerline or 50 feet from the right-of-way line, whichever is greater, except those highways noted below where the minimum setback is 130 feet from centerline of the right-of-way or 80 feet from the right-of-way line, whichever is greater:

- a. U.S. Highway 287 from Fort Collins city limits south to the Boulder County line.
- **b.** Colorado Highway 68 (Harmony Road) from Interstate 25 west to Highway 287.
- **c.** Colorado Highway 14 (Mulberry Street) from Fort Collins city limits east to the Weld County line.
- d. Colorado Highway 392 from Interstate Highway 25 east to the Weld County line.
- e. U.S. Highway 34 from Morning Drive east to the Weld County line.
- **f.** Fort Collins Expressway and those portions of U.S. Highway 287 and Colorado Highway 14 north of Fort Collins city limits that are four lanes.
- g. Colorado Highway 402 from Loveland city limits east to the Weld County line.

2. County Roads

a. Setbacks from Larimer County roads, as identified and classified on the Larimer County Functional Road Classification Map, are measured from the original right-of-way centerline as shown in Table 2-6: *Road Classification*, before any additional right-of-way was dedicated, as determined by the County Engineer.

Table 2-1: Road Classification	
Type of Road	Setback
Arterial	110 feet
Major collector	100 feet
Minor collector	70 feet

Table 2-1: Road Classification	
Type of Road	Setback
Local, numbered county roads	60 feet

b. Setbacks for additions to existing buildings that are nonconforming with respect to county road setbacks may be eligible for a minor modification pursuant to §6.7.1, *Minor Modifications*.

3. Annexed Roads

Properties in unincorporated Larimer County along a road that has been annexed and is under the jurisdiction of a municipality have the option of utilizing the county required setbacks based on the most recent county road classification (prior to annexation) or requesting an administrative variance to allow a setback consistent with the required setback from the adjacent jurisdiction.

F. Setbacks from Streams, Creeks, and Rivers

The minimum required setback from any stream, creek or river identified on a U.S.G.S. quadrangle map is 100 feet from the centerline of the water course unless a greater setback is required by §4.4.2, *Wetlands*, §4.4.4, *Wildlife*, or Article 12.0, *Floodplain*, or unless evidence is provided documenting that the centerline has been relocated by a previously approved development; or where the centerline is a ditch managed by a ditch company. This section is not applicable to irrigation laterals.

G. Setbacks from Oil and Gas Facilities

- 1. Pre-Production Phase: For permitted or existing oil and gas locations where all permitted wells have not entered completions, no new residential, commercial, or mixed use shall be allowed within one thousand feet (1,000') of such well site. This includes, but is not limited to, school facilities, hospitals, medical clinics, senior living or assisted living facilities, or state licensed daycares. This section does not apply to industrial, agricultural, or open space uses. Measurements shall be taken from the edge of the well site.
- 2. Production Phase: For permitted working pad surfaces where all permitted wells have entered completions, or the permit has otherwise lapsed, been revoked, or forfeited, and is not subject to renewal or reissuance:
 - a. No new residential, commercial, or mixed use lots, school facilities, hospitals, medical clinics, senior living or assisted living facilities, or state licensed daycares may be platted within the following minimum setbacks:1

Oil and gas production facility	<u>Setback</u>
Oil and gas production facility without wells	200'

¹ COGCC does not have a reverse setback requirement; Boulder County does not have reverse setbacks; Adams County has a 250-foot reverse setback; Brighton has a 250-foot setback; Frederick, Mead, and Ft. Lupton have 150-foot setbacks; Commerce City has a 1,000-foot reverse setback; Weld County has a 150-foot setback requirement from wellhead and 200-foot setback from tank in agricultural areas but a 350-foot reverse setback in residentially-zoned areas.

1-2 wells	200'
3-24 wells	350'
25 or more wells	500'

- b. Measurements shall be taken from the closest edge of the "working pad surface."
- c. The setback from a flowline or gathering line shall be a minimum of 50 feet.

3. Post-production Phase:

- a. For COGCC permitted oil and gas production facilities where all permitted wells have been abandoned, no building or structure may be placed within 50 feet of the abandoned well.
- b. Vacation of Existing Easements. No easement may be vacated for a previous or existing well, flowline, or gathering line, unless documentation is provided to the Town demonstrating such well, flowline, or gathering line has been vacated in compliance with all applicable Colorado Oil and Gas Conservation Commission regulations.
- 4. Plat requirements. The following information shall be denoted on all preliminary and final plats:
 - a. The reception number, date, and recording location of all relevant surface use agreements;
 - b. The location of all oil and gas production facilities, access roads, and any associated easements;
 - c. The location of any plugged and abandoned oil and gas wells;
 - d. The location of any flowlines and gathering lines that are still in service; and
 - e. A plat designation surrounding such flowlines and gathering lines and plugged and abandoned wells, and a note expressly prohibiting any habitable building or structure within 50 feet of those facilities.²

H. Steep Slopes

The Director may require greater setbacks for properties in the mixed-use and nonresidential districts to avoid development of steep slopes adjacent to public rights-of-way.

I. Allowed Setback Encroachments

1. In all cases a minimum setback of five feet shall be required from all property lines for any structural component or architectural feature.

² COGCC does not have a setback from plugged and abandoned (P&A) wells; Boulder County does not have reverse setbacks; Adams County requires a minimum setback of 50-feet for homes and no structures shall be within a 100 x 50-foot buffer from P&A wells; Weld County has a 25-foot setback requirement from P&A wells; Commerce City has a 50-foot setback from P&A wells.

- 2. Setback exceptions do not apply to easements.
- **3.** Certain architectural features and improvements may encroach into required setbacks as follows:

Table 2-2: Allowed Setback Encroachments		
Type of Feature	Extent of Encroachment Allowed	
Cornice, canopy, eave, awning, bay window, window well, cantilevered wall, chimney, or mechanical and electrical equipment	May extend two feet into a required setback or a setback approved by variance or administrative variance, but in no case may be closer than five feet from a property line.	
Ground-mounted small solar energy facility	In any residential district, a ground-mounted small solar energy facility may extend up to five feet into the side or rear yard.	
Mobility access ramp or lift	As necessary upon written request to Director.	
Open unenclosed and uncovered porch or deck with a finished floor elevation 30 inches or less above the finished grade	Shall maintain a distance of five feet from all lot lines.	
Porch or deck with a finished floor elevation greater than 30 inches above the finished grade	Shall meet the applicable building setbacks.	
Porch or deck are located at grade	No setback restriction.	

J. Setback and Survey Certification

- 1. All non-residential development requires a survey certification to verify compliance with the approved site plan, plat, or plot plan.
- 2. At the time of the footing and foundation inspection by the Larimer County Building Department, the property owner is required to clearly identify the boundary corners of the lot and/or building envelope.
- **3.** On lots without building envelopes, the owner will be required to obtain a licensed surveyor's certification of the building location whenever the proposed setback is less than five feet beyond the required setback.
- **4.** On lots with building envelopes, the owner will be required to obtain a licensed surveyor's certification whenever the proposed building location is less than five feet from the boundary of the building envelope.
- **5.** The certification, when required, shall be provided by a surveyor licensed to practice in the State of Colorado. The certification may be in the form of a letter, which shall be signed and sealed by the licensed surveyor. The letter shall include the number of the building permit issued for the site in question.

Article 6.4.3. Special Review

6.4.3. Special Review

A. Purpose

The special review procedure provides a mechanism for the county to evaluate proposed development and land uses that have unique or widely varying operating characteristics or unusual site development features to ensure compatibility with surrounding areas. The procedure considers the location, design, configuration, intensity, density, natural hazards, and other relevant factors pertaining to the proposed use to evaluate the potential impacts of such uses on surrounding properties, including the environment and wildlife, and to ensure that such uses are compatible with surrounding properties and that adequate mitigation is provided to minimize potential impacts on those surrounding properties and/or the county.

B. Applicability

Special review is required for certain land uses and zoning districts as specified in §3.2, *Tables of Allowed Uses.* Special review approval is also required for modification or expansion of an existing special review use.

C. Special Review Procedure

Figure 6-3 identifies the applicable steps from §6.3, *Common Review Procedures*, that apply to the review of special review applications. Additions or modifications to the common review procedures are noted below.

Figure 6-1: Summary of Special Review Procedure

1	Pre-Application Conference	Required	
2	Sketch Plan	Required	
3	Neighborhood Meeting	Director may waive meeting requirement based on response to neighbor referral	Ne
			eight Appli
4	Application Submittal and Processing (additional pre-application conference required)	Submit to DirectorNeighbor referral required	Veighborhood Notice and Application Processing
			otice ocess
5	Staff Review	Review by Staff	e and sing
6	Scheduling and Notice of Public Hearings	 Planning Commission hearing County Commissioners hearing 	Heari ng and Decis

7	Review and Decision	 Planning Commission review and recommendation County Commissioners review and decision 	

8 Post-Decision Actions Special review expires if not commenced within 3 years of approval

1. Pre-Application Conference

A pre-application conference shall be held in accordance with §6.3.2, *Pre-Application Conference*.

2. Sketch Plan

Sketch plan review pursuant to §6.3.3, *Sketch Plan Review*, shall be required prior to submission of the special review application.

3. Neighborhood Meeting

A neighborhood meeting shall be held in accordance with §6.3.4, *Neighborhood Meeting*. The Director may waive the meeting requirement based on responses received to the neighbor referral.

4. Application Submittal and Processing

The application shall be submitted, accepted, and revised, and may be withdrawn, and the neighbor referral completed, in accordance with §6.3.5, *Application Submittal and Processing* with the following modifications:

a. Special review applications may be reviewed in combination with a site plan application. However, each application shall be decided separately based upon the applicable criteria of this Code, and the site plan decision shall be approved only following approval of the special review application.

5. Staff Review

The staff shall review the application and prepare a staff report and recommendation in accordance with §6.3.6: *Staff Review.*

6. Scheduling and Notice of Public Hearings

The special review application shall be scheduled for public hearings before the Planning Commission and the County Commissioners and shall be noticed pursuant to §6.3.7: *Scheduling and Notice of Hearings*.

7. Review and Decision

a. Planning Commission Review and Recommendation

The Planning Commission shall review the special review application in accordance with the approval criteria in §6.4.2.D, *Review Criteria*, and shall forward its recommendation to the County Commissioners.

b. County Commissioners Review and Decision

The County Commissioners may review and approve, approve with conditions, or deny the special review application in accordance with the approval criteria in §6.4.2.D, *Review Criteria*.

c. Conditions of Approval

In addition to the allowed conditions of approval in §6.3.8.C, *Conditions of Approval*, the following shall apply:

- i. The Board of County Commissioners may set limits on the length of any special review use to obtain assurances that the ongoing operation of the use will comply with all of the applicant's representations and all conditions of approval, including, but not limited to, requiring an annual compliance review.
- **ii.** These conditions may be required to be included in a development agreement signed by the applicant and the County Commissioners and recorded with the County Clerk and Recorder. The development agreement shall comply with §6.3.9.H, *Development Agreements*.
- **iii.** The County Commissioners may require the applicant to post sufficient collateral to ensure the timely completion of any improvements required or needed to address potential impacts of the proposed use. The amount and type of collateral must be detailed in the development agreement and be consistent with §6.3.9: *Post-Decision Actions and Limitations*.

8. Post-Decision Actions and Limitations

All common procedures in §6.3.9: *Post-Decision Actions and Limitations*, shall apply, with the following modifications:

a. Expiration

- i. Special review approvals approved in conjunction with a site plan review shall expire following a public hearing if the use is not commenced within two years of the date of approval.
- **ii.** All other special review approvals expire following a public hearing if the use is not commenced within three years of the date of approval.

b. Permits Required

A building permit is required for the construction of buildings or structures on the site as required by building code. Development improvements and construction shall be approved and completed prior to commencement of the approved use.

c. Modifications

Changes to approved special review plans that the Director determines are not minor deviations require approval through the special review process. This requires a new application and receives full review under the process described below. The Director may, however, waive sketch plan review and a portion of the application fees.

D. Review Criteria

In reviewing a proposed special review application, the review bodies shall consider the general approval criteria in §6.3.6: *General Review Criteria*, and also whether:

- 1. The proposed use has minimal impacts on existing and future development of the area;
- 2. Any impacts associated with the environment, wildlife, access, traffic, emergency services, utilities, parking, refuse areas, noise, glare, odor, and other adverse impacts have been adequately addressed and/or mitigated;
- **3.** The recommendations of referral agencies have been considered and adequately addressed;
- **4.** Within a GMA district, the proposed use is consistent with the applicable supplementary regulations to the GMA district, or if none, with the Comprehensive Plan; and
- **5.** The applicant has demonstrated that this project can meet applicable additional criteria listed in Article 3.0, *Use Regulations*.

Article 11.0 Oil and Gas Regulations

Article 11.0 Oil and Gas Facilities

11.1. Intent and Purpose

11.1.1. Intent

The intent of this section of the Land Use Code is to establish a regulatory framework for new oil and gas facilities (O&GFs) to be located in the unincorporated areas of Larimer County in a manner that acknowledges private property rights and protects the public health, safety, and general welfare, protects environment and wildlife, and minimizes adverse impacts.

11.1.2. Authority

C.R.S. 29-20-104-(1) provides the County authority to regulate and review applications pertaining to the surface development of O&GFs.

11.1.3. Purpose

These regulations are necessary to:

- **A.** Ensure a comprehensive land use process and transparent public process for the development of new O&GFs, in the unincorporated areas of the County.
- **B.** Provide for the managed development, installation, maintenance, modification, reclamation, and removal of O&GFs, while acknowledging the interests of oil and gas developers and operators, or mineral interest owners.
- **C.** Minimize to the maximum extent possible the nuisance effects of O&GFs through the application of best available techniques and technologies.
- **D.** Promote and protect the public health, safety, and welfare, and protect the environment and wildlife by minimizing the adverse impacts of O&GFs.
- **E.** Maximize protection of natural and cultural resources and public facilities.
- **F.** Encourage O&GF's to strategically locate where adverse impacts from such operations can be avoided.
- **G.** Minimize and mitigate the extent and severity of adverse impacts that cannot be avoided.
- **H.** Confirm the financial, indemnification and insurance capacities of the oil and gas developer/operator to ensure timely and effective construction, production, removal and reclamation of O&GFs and infrastructure.

11.1.4. Applicability

These regulations shall apply to all new and greenfield O&GFs, to be constructed on any property in all zoning districts in the unincorporated portions of Larimer County.

11.1.5. Severability

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

11.2. Review Procedures and Required Permits

11.2.1. General Requirements

No person, firm or corporation shall establish, construct, or build a new O&GF, without first having obtained required land use approval(s) and permits as required by this Code. Applications to the County for new O&GFs, may be submitted simultaneously with the Colorado Oil and Gas Conservation Commission (COGCC) permitting process.

11.2.2. County Review Process

All new O&GFs, in the unincorporated portions of Larimer County shall require approval of a Special Review application for the proposed facility as set forth in §6.4.2, *Special Review*, of this Code. Application and submittal requirements for O&GFs are specified in the following Community Development Department application handouts:

- A. Sketch Plan Review Application and Submittal Requirements for Oil and Gas Facilities.¹
 - 1. The requirements found in 12.2.3;
 - 2. Preliminary Site Analysis. The applicant shall prepare and submit a Preliminary Site Analysis to the County for the Sketch Plan Review. The Preliminary Site Analysis shall include the following information:
 - **a.** All drilling and spacing units proposed by the applicant within one (1) mile of the County's boundaries;
 - **b.** The proposed location or route for the oil and gas facility and all features defined below, completely contained within, or within ¼ mile of all drilling and spacing units proposed by the applicant;
 - **c.** Any existing residential, platted residential, or property currently entitled for residential use, not including properties zoned for agricultural use over five (5) acres in size;
 - **d.** Any facility classified as a high occupancy building as defined by the COGCC;
 - **e.** Any school, nursing facility as defined in § 25.5-4-103(14), C.R.S., hospital, life care institutions as defined in § 12-13-101, C.R.S., or correctional facility as defined in § 17-1-102(1.7), C.R.S.;
 - **f.** Any operating child/elderly care center or child/elderly care home as defined in the Land Use Code;
 - **g.** Community Park Land, Public Parks, Regional Park Land, and Trails and Trailheads as defined in the Land Use Code
 - **h.** Areas within the FEMA 100-Year Floodplain boundary;
 - i. The centerline of all USGS perennial and intermittent streams;
 - **j.** Reservoirs and public water supply wells;
 - k. Wetlands; and
 - **l.** High priority wildlife habitat.

Larimer County Land Use Code

¹ The requirements for a "preliminary site analysis" and "alternative location analysis" listed here are more appropriately located in the "Oil and Gas Application and Submittal Requirement handout." They are listed here for discussion purposes.

- 3. Alternative Location Analysis. All applicants must submit an alternative location analysis. The alternative location analysis will include, at a minimum, the following information:²
 - **a.** A map depicting the following elements within three miles of the proposed surface location or pipeline route:
 - **b.** All mineral rights held or controlled by the applicant;
 - c. All drilling and spacing units proposed by the applicant; and
 - d. The location of all features listed in the "Preliminary Site Analysis."
 - **e.** Unless waived by the Community Development Director, the analysis shall evaluate a minimum of three potential locations or routes that can reasonably access the mineral resources within the proposed drilling and spacing unit(s), including the following information for each site or pipeline route:
 - i. General narrative description of each location or pipeline route;
 - ii. Any location restrictions that the site does not satisfy;
 - iii. Off-site impacts that may be associated with each site or route;
 - iv. Proposed truck traffic routes and access roads for each location; and
 - **v.** Any information pertinent to the applicable review criteria that will assist the Community Development Director in evaluating the locations or routes.
- **B.** Neighborhood Meeting Submittal Requirements and Guidelines for Oil and Gas Facilities.
- **C.** Special Review Application and Submittal Requirements for Oil and Gas Facilities.

11.2.3. Notification

All O&GF applications shall have a minimum APO notification boundary of ½ mile (2,640 feet) for all neighbor referral, neighborhood meeting and public hearing notices, as outlined §6.3, *Common Review Procedures*.

11.2.4. County Permits

Prior to the commencement of any construction activity for an O&GF, all required permits for such facilities shall be approved. Required permits include, but are not limited to:

- A. Access permits,
- **B.** Development construction permit,
- C. Building permits for all qualifying buildings and structures,
- **D.** Electrical permits, and
- **E.** All federal, state, and local permits.

11.2.5. Non-County Permits

County approval of an O&GF shall not relieve the landowner or applicant of the responsibility for securing other permits or approvals required by any other applicable County Departments, local fire district, municipalities, or other applicable publicagencies.

² The COGCC now requires an Alternative Location Analysis (Rule 304.b(2)) as do Adams County, Broomfield County, and numerous municipalities including Brighton, Aurora (draft), Commerce City, and Erie. Boulder County and Weld County do not require an alternative location analysis.

11.2.6. Technical Expert Review

Applications for O&GFs may involve complex technical issues that require review and input that is beyond the expertise of County staff. If such a situation arises, the Director may commission a third-party review of the relevant subject matter and require the applicant to pay reasonable costs for the third-party review. Selection of a third-party expert(s) to review portions the proposal will be at the discretion of the County.

11.3. Standards Required for Oil and Gas Facilities.

11.3.1. General

- **A.** In addition to the standards and requirements of this section, all other relevant standards and regulations set forth in this Code shall also apply.
- **B.** All applications for new O&GFs, shall meet all applicable federal, state, and local standards and regulations pertaining to the development and operation of such facilities.

11.3.2. Location Restrictions:

Oil and gas locations (well sites and production facilities) shall only be located within the following zoning districts without obtaining a variance under Section 6.7.3.: NR – Natural Resources; FO – Forestry; A – Agriculture; ACE – Agricultural Commercial Enterprise; O – Open; IH – Heavy Industrial; AP – Airport; and PD-Planned Development and RPD – Rural Planned Development where oil and gas development is a specified use.³

- A. Oil and gas locations shall be at least two thousand (2,000) feet from the property line of any school facility or child care center.
- B. Oil and gas locations shall be at least one thousand _____ feet from the following unless a variance is obtained:⁴
 - 1. Building unit(s) that are not subject to a waiver from all building unit owner(s) explicitly agreeing with informed consent to the proposed oil and gas location;
 - 2. Community Park Land, Public Parks, Regional Park Land, and Trails and Trailheads as defined in the Land Use Code.
 - 3. Public water supply surface intakes or public water supply wells; and
- C. No oil and gas locations may be located between one thousand 1,000' and two thousand 2,000' of any platted residential building units, unless one or more of the following conditions are satisfied:
 - 1. All existing owners of any of the affected residential properties within 2,000' of the relevant point of measurement explicitly agree with informed consent to the proposed oil and gas location;

-

³ Oil and gas development would be prohibited in all other zones. These changes would also be reflected in Sections 3.2.6 and 3.2.7 (Table of allowed principal uses, rural and urban).

Use of zoning to restrict oil and gas development is used in several municipalities including Commerce City, Erie, and Superior. Boulder County and Weld County do not restrict oil and gas development through zoning. Adams County restricts oil and gas facilities from residential areas but not from commercial areas.

⁴ COGCC has a strict 500 foot setback with the ability to locate within 500-2,000 feet by demonstrating "substantially equivalent protections" (Rule 604); Boulder County has a 2,000-foot setback requirement (with a stated preference for 2,500 feet); Adams County has a 1,000 foot setback (but may revise); Commerce City has a 1,000 foot setback with a 1,500 foot setback from 10 or more homes; Erie has a 2,000 foot setback; Brighton has a 1,000 foot setback; Weld County has a 300 foot setback.

- 2. Any wells, tanks, separation equipment, or compressors proposed on the oil and gas location will be located more than 2,000' from the relevant point of measurement; or
- 3. The Board of County Commissioners finds, as part of their Special Review of an application, that the proposed oil and gas location and conditions of approval will provide substantially equivalent protections for public health, safety, welfare, the environment, and wildlife resources. The Board of County Commissioners will consider, without limitation:
 - a. The extent to which the oil and gas location design and any planned practices, preferred control technologies, and conditions of approval avoid, minimize, and mitigate adverse impacts, considering:
 - i. Geology, technology, and topography;
 - ii. The location of receptors and proximity to those receptors; and
 - iii. The anticipated size, duration, and intensity of all phases of the proposed oil and gas operations at the proposed oil and gas location.
 - b. The operator's alternative location analysis conducted pursuant to section 11.2.2.B;
 - c. Related oil and gas location siting and infrastructure proposed;
 - d. How O&GFs associated with the proposed oil and gas location are designed to avoid, minimize, and mitigate impacts on the affected properties; and
 - e. The operator's actual and planned engagement with nearby residents, property owners, and businesses to consult with them about the planned oil and gas operations.
- 4. Al oil and gas locations proposed within the County shall be at least five hundred (500) feet from the following:
 - a. Rivers and streams;
 - b. Existing Water Storage Facilities and approved future Water Storage Facilities as defined in the Land Use Code; and
 - c. Ditches that transport water used by, or to augment, a public water supply system.
- 5. Locating O&GFs within a Federal Emergency Management Agency (FEMA) designated 100-year floodplain shall not be allowed unless no other location is feasible, and all other appropriate permissions are obtained.
- 6. All equipment at an oil and gas location located within a 100-year floodplain shall be anchored as necessary to prevent flotation, lateral movement or collapse or shall be surrounded by a berm with a top elevation at least one (1) foot above the level of a 100-year flood.
- 7. In addition to the requirements within Article 11, oil and gas development proposed within an area zoned within the natural resources (NR) district will also have to go through the 1041 permitting process outlined in §10.9.4.of this code.

11.3.3. Air Quality

A. An Air Quality Report and Plan shall be submitted with all O&GF applications. The report/plan shall include baseline air quality data and demonstrate how the development

- and operation of the facility will avoid and/or mitigate adverse impacts to air quality and demonstrate compliance with and implementation of standards in §§11.3.3 and 4.11 of this Code.
- **B.** In addition to all federal and state laws, rules and regulations, applications for O&GFs shall demonstrate how exploration, construction and standard operations of an O&GF will comply with the rules and regulations of the Colorado Air Quality Control Commission (AQCC). Information to be provided shall include all appropriate applications of notifications and permits for sources of emissions.
- **C.** Reduced Emission (Green) Completions shall be used for all completions and well workovers. Such completions shall include the use of Best Management Practices including, when available, the following unless an equal orbetter system exists:
 - 1. Closed loop, pitless drilling, completion systems, without permanent on-site storage tanks, for the containment and/or recycling of all drilling, completion and flowback fluids.
 - 2. Flaring only allowed during emergencies or upset conditions. When allowed, routing and control of all emissions to a flare or combustor shall provide at least 98% destruction or removal efficiency.
 - 3. Zero emission desiccant dehydrators.
 - **4.** Emission controls of 95% or better for glycol dehydrators.
 - 5. Pressure-suitable separator and vapor recovery units.
 - 6. No-bleed continuous and intermittent pneumatic devices.
 - 7. Automated tank gauging.
- **D.** O&GFs shall be equipped with electric-powered engines for motors, compressors, drilling and production equipment, and pumping systems unless no adequate electricity source is available, or it is technically infeasible.
- **E.** O&GF applications shall include operational provisions to reduce emissions on Air Quality Action Advisory Days posted by the Colorado Department of Public Health and Environment (CDPHE) for the Front Range area. The provisions shall include how alerts are received, outline specific emission reduction measures, and include requirements for documenting the measures implemented. Measures should include:
 - 1. Minimizing vehicle traffic and engine idling,
 - 2. Reducing truck and worker traffic,
 - 3. Delaying vehicle refueling,
 - 4. Suspending or delaying use of fossil fuel powered equipment,
 - 5. Postponing construction and maintenance activities,
 - **6.** Postponing well maintenance and liquid unloading that would result in emission releases to the atmosphere, and
 - 7. Postponing or reducing operations with high potential to emit VOCs of NOx.

11.3.4. Leak Detection and Repair

A. A Leak Detections and Repair Plan shall be submitted with all O&GF applications. The plan shall disclose techniques, methods and protocols that will be utilized at the proposed O&GF to identify, prevent, contain, document, repair, and report leaks, and shall demonstrate how it will comply with and implement the standards in this §11.3.4.

- **B.** Operators shall conduct leak detection and repair inspections at the frequency required by the APCD (Air Pollution Control Division) for the emission source using modern leak detection technologies (infrared cameras, etc.) and equipment. The results of said inspections, including all corrective actions taken, shall be reported to the Larimer County Department of Health and Environment (LCDHE) and County Local Government Designee (LGD) upon request.
- **C.** Repair of verified leaks shall occur within 72 hours of detection. If it is anticipated that a repair will take longer than 72 hours, the operator shall provide a written explanation to the LCDHE and the LGD as to why more time is required and how the leak will be contained. If a leak is not repaired within 72-hours, the O&GF shall be shut-in until the leak is repaired.
- **D.** Equipment leaks that pose an imminent safety risk to persons, wildlife, or the environment shall undergo emergency shut down and not be allowed to operate until the operator has provided evidence that the leak has been repaired.
- **E.** At least annually, operators shall provide a 2-week notice of a routine leak inspection to the LCDHE and LGD inviting them to attend and observe the inspection.

11.3.5. Odors

- **A. An Odor Mitigation Plan** shall be required for all O&GF applications indicating how the operations will prevent odors from adversely impacting the public and wildlife and further demonstrating compliance with the standards in this §11.3.5.
- **B.** Oil and gas operations shall comply with the CDPHE, AQCC, Regulation No. 2 Odor Emission, 5 CCR 1001-4, Regulation No. 3, 5 CCR 1001-5, and Regulation No. 7, 5 CCR 1001-9 Sections VII and VIII.
- **C.** Proposed O&GFs shall provide protocols for immediate response to odor complaints that include options for ceasing operations, notification of affected residents, and temporary relocation of residents until the source of the odor is identified and resolved.
- **D.** The operator shall communicate the schedule/timing of well completion activities to adjacent and nearby residents which could include an online portal. As part of the application, provide information on how notifications will be communicated to the public.
- **E.** The Odor Mitigation Plan shall include control strategies which shall be implemented upon receipt of an odor complaint(s) or as required by the County depending on the size, location, and nature of the facility. These Odor control strategies may include the following:
 - 1. Odorants, that are not a masking agent, shall be added to chillers and/or mud systems.
 - 2. Additives to minimize odors from drilling and fracturing fluids except that operators shall not mask odors by using masking fragrances.
 - **3.** Filtration systems and/or additives to minimize, not mask, odors from drilling and fracturing fluids shall be utilized in the drilling and flowback processes.
 - **4.** Increasing additive concentration during peak hours provided additive does not create a separate odor. Additives must be used per the manufacturer's recommended level.
 - **5.** Enclosed shale shakers shall be utilized to contain fumes from exposed mud where safe and feasible.
 - **6.** Drilling activities shall utilize minimum low odor Category III drilling fluid or non-diesel-based drilling muds that do not contain benzene, toluene, ethylbenzene, or xylene (BTEX).
 - 7. Wipe down drill pipe as they exit the well bore each time.

11.3.6. Water Quality and Water Bodies

- **A. A Water Quality Report/Plan** shall be submitted with all O&GF applications. The report/plan shall demonstrate how the development and operations of the facility will avoid impacts to surface and ground waters in Larimer County, identify all private and community permitted water wells within half-mile and demonstrate compliance with and implementation of standards in §11.3.6 of this Code and the LUC Supplemental Materials.
- **B.** Baseline and subsequent water source tests, as typically required by and submitted to the COGCC and CDPHE, shall be provided to the LCDHE and the LGD for the life of the facility and any post-closure assessments, if approved by the owner(s) of the water well.
- **C.** The application shall provide documentation indicating how the COGCC waterquality protection standards are being implemented.
- **D.** Locating O&GFs within a Federal Emergency Management Agency (FEMA) designated 100-year floodplain shall not be allowed unless no other location is feasible, and all other appropriate permissions are obtained.
- **E.** The requirements of this §11.3.6 shall not prevent discharges reviewed and permitted by the CDPHE Water Quality Control Division, the EPA, and the Army Corps of Engineers.

11.3.7. Spills and Releases

- A. A Spill Prevention and Containment Plan shall be submitted with all O&GF applications. The plan shall disclose techniques, methods, and protocols to be utilized at the proposed O&GF to prevent, contain, document, and report any spills or releases, and shall demonstrate compliance with and implementation of the standards in this §11.3.7.
- **B.** An Emergency Response Plan shall be provided that includes evacuation plans and routes, inventory of emergency response supplies, and notification requirements. The plan shall include what training opportunities that will be provided for emergency services personnel to become familiar with the site.
- **C.** Secondary containment shall be required and shall conform to the requirements of the COGCC rules and standards.
- **D.** Unloading areas shall be designed to contain potential spills or direct spills into other secondary containment areas
- **E.** Containment systems constructed of steel rimmed berms, or similar impervious surfaces that are equal to or better, shall be used for all secondary containment areas.
- **F.** Any spill or release of unrefined and refined petroleum products, hazardous substances, fracking fluids, E&P waste, or produced fluids of greater than 25 gallons outside of secondary containment areas on an O&GF, including those thresholds reportable to the COGCC, shall upon discovery, be immediately reported to the National Response Center and CDPHE as well as the following Local Emergency Response Authorities in Larimer County:
 - 1. Larimer County Sheriff Public Safety Answering Point (PSAP) (9-1-1)
 - 2. Larimer County Department of Health and Environment,
 - 3. Local Fire Department/District,
 - 4. Local Municipal Police Department if within in mile of a City or Town,
 - 5. Larimer County Oil and Gas LGD, and
 - **6.** Larimer County Local Emergency Planning Committee (within 24-hours).

G. All spills or releases, whether reportable or not, shall be cleaned up immediately and to the satisfaction of the local emergency response authorities, listed in the Spill Prevention Control and Countermeasure Plan.

11.3.8. Noise

- **A.** A Noise Report and Mitigation Plan shall be required for all O&GF applications. The plan shall demonstrate how the operations will mitigate noise and vibration impacts to comply with the noise standards contained in this §11.3.8. The report and plan shall include the following:
 - 1. A five-day (two days being the weekend day) baseline noise analysis.
 - 2. Modeled decibel levels for all phases of development shall be presented using contour maps from the O&GF site (combining noise sources) at 350 feet, 500 feet, 1000 feet, and to the property line of the adjacent properties. Contour maps shall be provided that demonstrate both unmitigated and mitigated decibel levels.
 - **3.** A plan of proposed mitigation measures to be implemented by the O&GF during each phase of development shall be provided to ensure compliance with the maximum permissible noise levels as listed in 11.3.8.B below.
- **B.** Noise generated from O&GFs shall comply with the following maximum permissible noise levels appropriate for the Zone Area Designation of the adjacent land uses as determined by the County. Zone Area Designations are defined by C.R.S. 25-12-102 Noise Abatement and will be used as part of the County's determination for surrounding land uses and may be different than the County's zone districts.

Table 0-1: Maximum Permissible Noise Levels			
Zone Area Designations	7:00 am to next 7:00 pm	7:00 pm to next 7:00 am	
Residential/Agricultural/Rural	55 db(A)	50 db(A)	
Commercial	60 db(A)	55 db(A)	
Light Industrial	70 db(A)	65 db(A)	
Industrial	80 db(A)	75 db(A)	

In the hours between 7:00 a.m. and the next 7:00 p.m., the noise levels permitted above may be increased by ten (10) db(A) for a single period of not to exceed fifteen minutes in any one-hour period. Night-time levels between 7:00 p.m. and the next 7:00 a.m. shall not be exceeded therefore requiring strategic planning of noise-inducing activities to be conducted during daytime hours at the site.

- **C.** Sound levels shall be measured at or within 25 feet of the parcel boundary line where the O&GF site is located. When evaluating a noise complaint, the County shall measure sound at or within 25 feet of the parcel boundary line of the O&GF site and other property boundaries which are more representative of the noise impact.
- **D.** O&GF activities shall be operated so the ground vibration inherently and recurrently generated is not perceptible, without instruments, at any point on a boundary line of the property on which the O&GF is located.

- **E.** In situations where low frequency noise is a component of the problem, a sound level measurement shall be taken 25 feet from the exterior wall of the residence or occupied structure nearest to the noise source, using a noise meter calibrated to the db(C) scale. If this reading exceeds 65 db(C), the County shall require the operator to obtain a low frequency noise impact analysis by a qualified sound engineer, including identification of any reasonable control measure available to mitigate such low frequency noise impact to be implemented by the O&GF. Such study shall be provided to the County for consideration and possible action.
- **F.** Construction of O&GFs, including drilling/well completions, recompletions, and pipeline installations, shall be subject to the maximum permissible noise levels specified for industrial zones for the period within which construction is being conducted. Construction activities directly connected with abatement of an emergency are exempt from the maximum permissible noise levels.
- **G.** Quiet design mufflers (i.e., hospital grade or dual dissipative) or equal to or better than noise mitigation technologies shall be utilized for non-electrically operated equipment.
- **H.** Motors, Generators, and engines shall be enclosed in acoustically insulated housings or covers.

11.3.9. Dust

- A. A Fugitive Dust Control Plan shall be submitted with all O&GF applications. The plan shall disclose techniques and methods to be utilized at the proposed O&GF to prevent or mitigate fugitive dust generated by the construction and operations of the proposed O&GF and shall demonstrate compliance with and implementation of standards in §§11.3.9 and 4.11 of this Code.
- **B.** Best management practices (BMPs) for the mitigation of dust associated with on-site operations and traffic activities shall be employed at the facility. The BMPs shall be outlined in the Fugitive Dust Control Plan.
- **C.** Produced water and other process fluids shall not be used for dust suppression unless adequately pretreated so that it does not create odors and has been approved for land application by CDPHE Water Quality Control Division.
- **D.** Safety Data Sheets (SDSs) shall be provided with the application for any proposed chemical based dust suppressants.
- **E.** Unless otherwise approved by the County Health and Engineering Departments, only water will be used for dust suppression activities within 300-feet of the ordinary high- water mark of any body of water.

11.3.10.Access

- **A.** A Traffic Impact Analysis and Routing Plan shall be submitted with all O&GF applications. The plan shall disclose routing alternatives and transportation infrastructure improvements proposed for the proposed O&GF to mitigate projected transportation impacts and demonstrate compliance with and implementation of the standards in this §11.3.10.
- **B.** Designs for private access drives shall conform to the Local Low Volume cross section found in the Larimer County Rural Area Road Standards and shall include the following:
 - 1. The first 50 feet of access drive from the edge of pavement of the adjacent road will be paved, or made of an approved all weather surface, and the remaining portions of the

- access drive shall be composed of a minimum of 6 inches of compacted Class 5 road base.
- 2. The access drive entrance shall include returns with a 30-foot radius.
- **3.** A mud and debris tracking pad shall be located at the end of the paved portion of the access drive.

11.3.11. Chemical Handling

- **A.** A Chemical and Hazardous Materials Report and Handling Plan shall be submitted with all O&GF applications. The plan shall disclose the type of hazardous and non-hazardous materials and chemicals that will be used on the site of the proposed O&GF, including how they will be handled to prevent spills and demonstrate compliance with and implementation of standards in this §11.3.11.
- **B.** Prior to any hydraulic fracturing activity, the Operator shall provide the County with a copy of the Chemical Disclosure Registry form provided to the COGCC pursuant to the COGCC's "Hydraulic Fracturing Chemical Disclosure".
- **C.** Drilling and completion chemicals shall be removed from the site within sixty (60) days of the drilling completion.

11.3.12. Recycle, Reuse and Disposal of Fluids

- **A.** A Waste Management and Disposal Plan shall be submitted with all O&GF applications. The plan shall document the techniques and methods of the proposed O&GF to manage wastes generated on the site and demonstrate compliance with and implementation of the standards in this §11.3.12.
- **B.** Drilling, completion flowback, and produced fluids shall be recycled or reused whenever technically feasible.
- **C.** If not to be recycled or reused onsite, exploration and production waste may be temporarily stored in tanks for up to 30-days while awaiting transport to licensed disposal or recycling sites.
- **D.** Produced water shall be recycled or reused or shall be transported by pipelineunless easements are not available.
- **E.** The Operator shall take precautions to prevent adverse environmental impacts to air, water, soil, or biological resources to the extent necessary to protect public health, safety, and welfare, including the environment and Wildlife Resources to prevent the unauthorized discharge or disposal of oil, gas, Exploration and Production Waste, chemical substances, trash, discarded equipment, or other oil field waste.
- **F.** The requirements of this §11.3.11 shall not prevent discharges or beneficial uses of water reviewed and permitted by the CDPHE Water Quality Control Division or another agency with jurisdiction.

11.3.13. Lighting and Visual Impacts

- **A.** For all phases of the development of the site, the application shall demonstrate compliance with the visual and aesthetic rules of COGCC and this Code for landscaping, fencing, and lighting set forth in Article 4.0, *Development Standards*.
- **B.** All O&GFs shall be painted with colors that are matched to or slightly darker than the surrounding landscape, and shall utilize paint with uniform, non-contrasting, nonreflective color tones based upon the Munsell Soil Color Coding System.

- **C.** The location of all outdoor lighting shall be designed to minimize off-site light spillage and glare using best practices recognized by the International Dark-Sky Association. See §4.10, *Exterior Lighting*.
- **D.** For all phases of site development, fencing shall be installed for security and visual aesthetics of the use.
- **E.** Sound or screening wall to mitigate for noise during construction and well completion may be required if the O&GF is within 2,000 feet of residential buildings or lots, or if electric requirement is appealed.
- F. O&GFs applications shall minimize removal of trees and vegetation on the site.
- **G.** Landscaping and/or fencing for screening and visual quality as viewed from public rights-of-way and neighboring residential areas shall be required within 6 months from the time of well completion and in accordance with requirements for the zoning district.
- **H.** O&GF applications shall demonstrate compliance with weed control requirements of the County Weed District and Forestry Services Department, including for access roads serving the facility.

11.3.14. Well Plugging and Abandonment

- **A.** A **Reclamation Plan** shall be submitted. The plan shall demonstrate how well abandonment and reclamation shall comply with the COGCC rules and shall include the following information:
 - 1. Removal of all equipment from the well site,
 - 2. Restoration of the site surface to the conditions of the site reclamation plan.
 - 3. Notice to the County LGD of the commencement and completion of such activity, and
 - **4.** Coordinates for the location of the decommissioned well(s), and any associated gathering or flow lines, shall be provided with the notice of the completion of well abandonment.

11.3.15. Well Liquids Unloading

- **A.** Best management practices, including artificial lift, automated plunger lifts and at least 98% emission reductions when utilizing combustion to control venting shall be employed at all facilities unless technically infeasible.
- **B.** Approved manual unloading shall require on-site supervision of the uploading process.

11.3.16. Flammable Materials

- **A.** The location of flammable materials on site shall conform to all COGCC safety standards and local fire codes.
- **B.** A minimum 25-foot buffer, free of weeds and dried grasses, shall be required around flammable materials or equipment.

11.3.17. Waste Disposal

- **A.** A Waste Management and Disposal Plan shall be submitted with all O&GF applications. The plan shall document the techniques and methods of the proposed O&GF tomanage wastes generated on the site and demonstrate compliance with and implementation of the standards in this §11.3.17.
- **B.** Oil and gas facilities shall remain free of debris and excess materials during all phases of operation.

- **C.** Burning of debris, trash or other flammable material is not allowed.
- **D.** Temporary storage of materials (up to 30-days) may be allowed with installation of screening to mitigate from aesthetic impacts from public rights-of-way or ifrequested by landowner.

11.3.18. Removal of Equipment

- **A.** There shall be no permanent storage of equipment (i.e., vehicles, trailers, commercial products, chemicals, drums, totes, containers, materials, and all other supplies not necessary for uses on an oil and gas location) on the site of an oil and gas facility.
- **B.** When not in use, or if no longer needed for on-site operations, all equipment not being used on the site shall be removed.

11.3.19. Maintenance of Machinery

- **A.** Statewide Best Management Practices shall be used to prevent contamination of soils and stormwater runoff, including equipment and vehicle maintenance and fluid containment.
- **B.** There shall be no maintenance of field equipment involving hazardous materials within 300-feet of a water body.
- **C.** Any fueling on-site shall occur over an impervious surface with a secondary containment berm and sump in case of a spill and shall not occur during stormevents.

11.3.20. Flow Lines, Transfer Lines, and Gathering Lines

- **A.** The use of pipelines to transport liquid production wastes and product is strongly encouraged.
- **B.** All off-site lines transporting process materials, production wastes, product and any other items used or generated by the facility shall be located to avoid existing or proposed residential, commercial, and industrial buildings, places of assembly, surface waterbodies and designated open spaces. Buried pipelines shall be a minimum of four-feet deep and shall be of detectable material which could include the addition of tracer wire to ensure detection during buried utility locating.
- **C.** The location of pipelines shall be evaluated on a case-by-case basis, with the determining locational factor being the size and type of pipeline beingproposed.
- **D.** Coordinates of all flow lines, gathering lines, and transfer lines shall be provided.

11.3.21. Temporary Water Lines

- A. Temporary waterlines shall be used unless development is not within a water service area.
- **B.** Temporary waterlines shall be buried at all existing driveway and road crossings, or utilize existing culverts, if available.

11.3.22. Financial Assurance

- **A.** The Applicant shall demonstrate the financial capability to reclaim all disturbed areas during each phase of the site development and following termination of the oil andgas operation on the site. This shall include meeting any state requirements, and any additional requirements the County deems necessary to protect the public health, safety, and welfare.
- **B.** The Applicant shall, for the life of the use, carry customary and usual environmental liability insurance.

11.4. Appeals

§6.7.2, *Appeals*, of this Code shall provide direction for all appeals to standards, processes, and provisions of this Article 11.0, *Oil and Gas Facilities*.

11.5. Enforcement and Inspections

- **11.5.1.** Applications for O&GFs shall demonstrate compliance with this and all other relevant Sections of this Code. Failure of an Operator to maintain compliance with the County approval of an O&GF may result in the revocation of the approval pursuant to the procedures in §6.3, Common Review Procedures.
- **11.5.2.** The County retains the right to seek whatever remedy or redress is legally allowable.
- **11.5.3.** The County reserves the right to inspect the property for compliance.

11.6. Fees and Security for Reclamation

The following fees are applicable to oil and gas facilities:

A. A Capital Transportation Impact fee.

11.7. Termination or Modifications of Use

- **11.7.1.** No modification to an approved O&GF shall be made without obtaining appropriate land use approvals from the County. A modification is any permanent physical change not required by law that substantially increases the site footprint or air emissions.
- **11.7.2.** Upon termination of use, the O&GF shall be reclaimed pursuant to the reclamation plan provided.

11.8. Definitions

Unless otherwise listed herein, the definitions found within the C.R.S. and Colorado Oil and Gas Conservation Commission (COGCC) regulations shall apply.

Article 11.0: Oil and Gas Facilities

11.8 Definitions | 11.3.22 Financial Assurance