MEMORANDUM

To: Board of County Commissioners
Larimer County Planning Commission

From: Matt Lafferty, AICP, Principal Planner
Frank Haug, Deputy County Attorney
Lesli Ellis, AICP CEP, Community Development Director
Tom Gonzales, MPH, REHS, Public Health Director
Shaun May, MPH, REHS, CPM, Environmental Health Services Director
Tom Butts, MSc., REHS, Environmental Health
Lea Schneider, Environmental Health Planner

Date: January 3, 2019

Re: Draft Larimer County Oil and Gas Facility Regulations for January 8, 2020 Work Session

Purpose of the Work Session

Since Spring of 2019, Larimer County has been working on oil and gas facility regulations for Larimer County with assistance from an advisory Task Force and the community. The work session on Jan. 8 is the first time the Planning Commissioners and Board of County Commissioners will review draft regulations (see Attachment A) and provide feedback to staff. The public is also reviewing this draft through January 19. Following feedback from this meeting and additional public input, staff will revise the draft for a public hearing with the Planning Commission starting in February. In March, the Board of County Commissioners tentatively will hold adoption hearing(s) for the proposed regulations. The schedule is noted on page 5 of this memo. Also contained in this packet is information about air quality monitoring prepared by the Department of Health and Environment for discussion. (See p. 5.)

Background

Given increased oil and gas activity occurring on the Front Range and in Larimer County, in March of 2019 the Board of County Commissioners assembled a Oil and Gas Regulations Task Force and process to develop draft local regulations that would supplement state regulations. The regulations are aimed at mitigating impacts of oil and gas facilities on land use, public health, and the environment.

While the County was doing its work assembling the Task Force and before the first meeting, the Governor signed Colorado SB 19-181 into law on April 16, 2019. The law requires the
Colorado Oil and Gas Commission (COGCC) to regulate oil and gas operations in a manner that protects public health, safety, welfare, and the environment and wildlife resources and provides local governments greater authority in the siting and surface impacts of oil and gas operations. The COGCC has continued its work on rulemaking since that time, including rulemaking on flowlines in November and proposing mission change and other topics for rulemaking carrying through mid-2020. The Air Quality Control Commission (AQCC) and Water Quality Control Commission (WQCC) also have been at work on new rules in fall of 2019 and into early 2020.

Staff prepared an oil and gas regulations project webpage and assembled resources for the Task Force to learn more about the topic and effectively advise staff on draft regulations. The webpage is: www.larimer.org/planning/oil-and-gas-regulations. It contains resources and examples, Task Force Charter and membership, agendas, video links from meetings, minutes, and a link to provide public comments.

On Oct. 30, at the fifth and last Task Force meeting, staff presented a draft (Ver. 1) of regulations for Task Force comments. This same version was also posted online for the community to provide comments. **Attachment B** contains a summary of the Task Force and public input via the online comment form, during office hours/open house with staff in November, and through written correspondence.

### Task Force and Public Input

Key themes of input that led to this most recent draft are listed below. On Oct. 30, the Task Force thought the draft regulations presented in October (Ver. 1) were going in the right direction and suggested:

- Include language about mineral rights of the owner and surface estate rights in the Intent and Purpose section.
- Most would like to reconsider the Special Review process for all application types and add a tiered approach so that certain types of applications might be eligible for administrative approval (e.g., for updating equipment or smaller facilities).
- Some members would like to see more reference to public notification and involvement (e.g., at the neighborhood meeting stage).
- Overall, the Task Force agreed with the direction of the specific standards as presented. Specific suggestions included:
  - Vague language regarding “economically infeasible or practical” needs clarification.
  - Put more thought into or remove the chemical list to avoid conflicts with state regulations.
  - The Task Force had previously discussed setbacks and were generally supportive of some types of setbacks.

Additional themes of discussion are noted at the end of Attachment B.

In November, public health and environmental advocacy groups suggested enhancing or modifying certain sections of the regulations presented in Ver. 1, including but not limited to:

- Add standards for setbacks, especially for high occupancy buildings but also other structures and sensitive natural areas. The groups asked for 2,000-foot setbacks
- Strengthen air quality standards. The groups provided detailed comments about monitoring, leak detection, and other provisions recommended to be added.
- Strengthen water quality and water body standards.
- Increase standards related to noise and add standards for vibrations.
- Rethink and eliminate the “economically infeasible” – making that language more in line with SB-19-181 and state’s rulemaking.
- Increase notification requirements.
- Add standards related to well plugging and abandonment.
- Many other small changes as noted in Attachment C letters.

Also, industry representatives who commented on the draft regulations (Ver. 1) thought they were generally appropriate and suggested:

- Add a tiered review process. Colorado Oil and Gas Association (COGA) provided detailed information about an administrative process in their comments.
- Aligning the application requirements and forms with the state.
- Support for concurrent review with the state application and desire to coordinate application form requests as much as possible.
- Generally finding the standards presented to be reasonable.

Overview of Draft Regulations (Ver. 2)

Organization of Draft Regulations
The draft regulations are in Attachment A. The regulations are organized as follows:

- 17.1. – Intent and Purpose
  A. Intent
  B. Authority
  C. Purpose
  D. Applicability
  E. Severability

- 17.2. – Review Procedures and Required Permits
  A. General Requirements
  B. County Review Process
  C. County Permits
  D. Non-County Permits
  E. Technical Expert Review

- 17.3. – Standards Required for all Oil and Gas Facilities
  A. General
  B. Setbacks and Buffers (new since Oct. draft)
  C. Air Quality
  D. Leak Detection and Repair
  E. Odors
  F. Water Quality and Water Bodies
  G. Spills and Releases
  H. Noise
  I. Dust
  J. Access
17.4. – Appeals
17.5. – Enforcement and Inspections
17.6. – Fees and Security for Reclamation
17.7. – Termination of Use or Modifications
17.8. – Definitions

Changes to this Version of Draft Regulations (Ver. 2)
Staff has slightly reorganized, modified, and enhanced the October draft to reflect comments heard, the latest state rulemaking direction. In preparing this latest draft (Ver. 2), staff continued to balance the divergent input and highlight important policy choices and will have further questions for the work session. Key changes to the draft include:

1. Updates to Intent and Purpose section to better align with SB-19-181 and other feedback.
2. Clarification that these standards apply to new facilities, exploration and recompletions, not preexisting facilities.
3. Removal of language related to economic feasibility to better align with SB-19-181, retaining some references to technical feasibility.
4. Including a note and some options related to administrate review for certain types of applications.
5. Addition of possible setback standards for policy discussion (in Sec. 17.3.B.).
6. Enhancements and clarification to standards for air quality impact (Sec. 17.3.C. - most of sections 1-5 are new), water quality and water bodies (Sec. 17.3.D.), spills and releases (Sec. 17.3.E.), leak detention and repairs (Sec. 17.3.F.), odors (Sec. 17.3.H.), fugitive dust (Sec. 17.3.I), and recycle, reuse, and disposal of fluids (Sec. 17.3.L.).
7. Acknowledgement that the stricter standard (either state or local) shall apply (Sec. 17.3.A.2.).
8. Removal of the list of chemicals in Section K. because the chemicals are regulated by the state and will further be addressed in the Chemical and Hazardous Materials Report and Handling Plan.
9. Removal of the “Guidelines” section formerly in Ver. 1 (17.4) and incorporating may of those recommendations for air quality and odors as standards.
10. Removal of the Application Requirements section (Formerly Sec. 17.5 in Ver. 1) and incorporating those requirements into the standards and referencing the application form.
Air Quality Rulemaking and Local Monitoring

There have been a great deal of comments and activity around the air quality requirements related to the oil and gas regulations. This section summarizes first the latest rulemakings at the state, and second, supplemental actions the County could consider related to the regulations.

Jeremy Neustifter, Policy Advisor with Colorado Department of Public Health and Environment (CDPHE), provided a summary statement regarding regulation changes per the Air Quality Control Commission’s (AQCC) recent rulemaking hearings. He noted that in December, the AQCC approved changes to Regulations 3 and 7 to include, among other things, new requirements for the oil and gas industry to minimize emissions of methane and other hydrocarbons. Highlights of those changes are as follows:

- first in the nation requirements for the transmission segment, requiring companies to develop and implement company-specific best management practices statewide;
- eliminating the 90-day permitting deferral for new oil and gas exploration and production facilities;
- inspection and maintenance requirements for pneumatic controllers statewide;
- increased leak detection and repair inspection frequencies for well production facilities statewide, especially for facilities operating within 1,000 feet of occupied structures; and,
- bolstering emission reporting requirements for the oil and gas industry to support the development of a more accurate and detailed emission inventory.

Each of these changes are intended to address Colorado's ozone problems as well as make progress towards Colorado's greenhouse gas emission reduction goals.

Beyond the state’s measures, the County could consider whether it should initiate a program to supplement the measures and be prepared to respond to local community concerns about oil and gas operation emissions. The County could consider acquiring an Infrared Camera (IR Camera) as studies have shown that most leaks are detected by the use of this device compared to visual /olfactory (look and smell) site inspections which are limited in detecting leaks. Early detection by local staff versus CDPHE’s Air Pollution Control Division followed by rapid repair will assure these operations do not adversely impact our community. Funding for the IR Camera could be incrementally received from applicants as part of the application fees, or if the device was purchased initially, the fees could then be used to offset this initial cost. County staff will be prepared to share information about resourcing such a program if the Board of County Commissioners would like to discuss options.

Proposed Schedule for Adoption of the Regulations

Following the work session on Jan. 8, upcoming milestones include:

1. Further public input on this January 2020 draft (Ver. 2) (through Jan. 19, 2020).
2. Staff revises the draft (into Ver. 3) for a public hearing with the Planning Commission (by approx. Jan 29, 2020).
3. Planning Commission holds the first public hearing to review and provide a recommendation on the draft regulations (tentatively scheduled for Feb. 19, 2020).
4. The Board of County Commissioners hold a public hearing to review and consider adoption of the draft regulations (tentatively scheduled for Mar. 23, 2020).
5. Regulations would become effective upon adoption. They could be amended at a later date if the state rulemaking changes how the County might administer its rules.

Questions for Planning Commission and Board of County Commissioner Discussion at Work Session

1. What should be revised, added, or removed in the draft Oil and Gas Facility Regulations? (See Attachment A.)
2. Should we add an administrative review process?
3. Should setback standards be included – as written, not at all, or be modified? (See Attachment A, Section 17.1.3.B.) Should we include reciprocal setback standards?
4. Outside of the regulations, should Larimer County Department of Health and Environment further explore options for air quality monitoring? (See Section above.)

ATTACHMENTS:

A. Chapter 17 – Draft Oil and Gas Facility Regulations, Ver. 2
B. Summary of Task Force and Community Input and key themes of discussion
C. Draft Application – or summary of items that will be in the application? (Special Review Application and Submittal Requirements for Oil and Gas Facilities)?
Attachment A: Section 17 Draft
17.0. – OIL AND GAS FACILITIES

17.1. – Intent and Purpose.

Note: This section has been updated to better reflect the language in SB 19-181.

A. 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), including recompletions to be located in the unincorporated areas of Larimer County in a manner that protects the public health, safety and general welfare, protects private property rights, protects environment and wildlife, and minimizes adverse impacts.

B. 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.

C. Purpose: These regulations are necessary to:
   1. Ensure a comprehensive land use process and transparent public process for the development of new O&GFs, including recompletions, in the unincorporated areas of the County.
   2. Provide for the managed development, installation, maintenance, modification, reclamation and removal of O&GFs without unreasonably discriminating against oil and gas developers and operators, or mineral interest owners.
   3. Minimize to the maximum extent possible the nuisance effects of O&GFs through the application of best available techniques and technologies.
   4. Promote and protect the public health, safety and welfare, and protect the environment and wildlife by minimizing the adverse impacts of O&GFs.
   5. Maximize protection of natural and cultural resources and public facilities.
   6. Strategically locate O&GFs to locate where adverse impacts from such operations can be avoided.
   7. Minimize and mitigate the extent and severity of adverse impacts that cannot be avoided.
   8. 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.

D. Applicability: These regulations shall apply to all new O&GFs, including exploration and recompletions, to be constructed on any property in all zoning districts in the unincorporated portions of Larimer County.

E. 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.

17.2. – Review Procedures and Required Permits.

Note: Some members of the Task Force and stakeholders provided input that they would like to see a tiered process for reviews, including an administrative process for simpler, smaller projects. The County could consider defining an administrative process (e.g., PSP) for recompletions that do not exceed a
A. **General Requirements.** No person, firm or corporation shall establish, construct, build a new O&GF, including recompletions, without first having obtained required land use approval(s) and permits as required by this Code. Applications to the County for new O&GFs, including recompletions, may be submitted simultaneously with the Colorado Oil and Gas Conservation Commission (COGCC) permitting process, but approval by the County must be secured prior to construction.

B. **County Review Process:** All new O&GFs, including recompletions, in the unincorporated portions of Larimer County shall require approval of a Special Review application for the proposed facility as set forth in Section 4.5 of this Code. Application and submittal requirements for O&GFs are specified in the following Community Development Department application handouts:
   1. Sketch Plan Review Application and Submittal Requirements for Oil and Gas Facilities.
   2. Neighborhood Meeting Submittal Requirements and Guidelines for Oil and Gas Facilities.
   3. Special Review Application and Submittal Requirements for Oil and Gas Facilities.

C. **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:
   1. Access permits,
   2. Development construction permit,
   3. Building permits for all qualifying buildings and structures,
   4. Electrical permits, and
   5. All federal, state and local permits.

D. **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 public agencies.

E. **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 Community Development 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.

17.3. **Standards Required for all Oil and Gas Facilities.**

A. **General:**
   1. In addition to the standards and requirements of this Section 17, all other relevant standards and regulations set forth in this Code shall also apply.
   2. All applications for new O&GFs, including recompletions, shall meet all applicable federal, state and local standards and regulations pertaining to the development and operation of such facilities. When the standards and regulations contained herein...
conflict with the standards and requirements of another agency, the stricter standard shall apply.

Note: The setbacks and buffers section below has been added since Draft 1 for Planning Commission and Board of County Commissioner discussion. The Task Force did not review this section.

B. Setbacks:
1. The minimum required setbacks for buildings and structures set forth in the applicable zoning district shall apply to the proposed O&GF.
2. In addition to the setbacks in paragraph 3 below, the setbacks set forth in Section 4.9 of this Code shall apply to proposed O&GFs to minimize their impacts on public health, safety, welfare, the environment, and agricultural operations.
3. To achieve the intent and purpose of this Section 17, the following minimum setbacks for O&GFs shall be required, unless more restrictive setbacks are required by the rules of the COGCC:
   a. 1,000-foot setback from a residential building or platted residential lot
   b. 2,000-foot setback from a high occupancy building including schools, registered day cares, nursing homes.
   c. 500-foot setback from a water body or designated outside activity area
4. To achieve the objectives of Section 17.1.C., the Board of County Commissioners may, on a case by case basis, require an increase to these minimum setbacks.
5. The Board of County Commissioners may allow a reduction of the minimum setbacks when it has been determined that the applicant has adequately demonstrated that the setbacks prohibit access to the mineral interests being sought, and the reduced setbacks will achieve to the extent practicable the objectives of this code.

C. Air Quality:
1. An Air Quality Report/Plan shall be submitted with all O&GF applications. The report/plan shall 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 Sections 17.3.C. and 8.11 of this Code.
2. In addition to all federal and state laws, rules and regulations, applications for O&GFs shall demonstrate how exploration, construction and standard operations of a O&GF, including traffic and construction equipment, 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.
3. Reduced Emission Completions shall be used for all completions and well workovers following hydraulic fracturing. Such completions shall include the use of Best Management Practices including, when available, the following unless an equal or better system exists:
a. Except for very small productions, 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.

b. 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.

c. Zero emission desiccant dehydrators.

d. Emission controls of 90% or better for glycol dehydrators.

e. Pressure-suitable separator and vapor recovery units.

f. No-bleed continuous and intermittent pneumatic devices.

g. Automated tank gauging.

4. 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.

5. During exploration and construction, the applicant shall demonstrate that all facilities on the site, including traffic and construction equipment, complies with all AQCC rules and regulations.

6. 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:

a. Minimizing vehicle traffic and engine idling,

b. Reducing truck and worker traffic,

c. Delaying vehicle refueling,

d. Suspending or delaying use of fossil fuel powered equipment,

e. Postponing construction and maintenance activities,

f. Postponing well maintenance and liquid unloading that would result in emission releases to the atmosphere, and

g. Postponing or reducing operations with high potential to emit VOC’s of NOx’s.

D. Leak Detection and Repair:

1. 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 it shall demonstrate how it will comply with and implement the standards in this Section 17.1.3.F.

2. Operators shall conduct leak detection and repair inspections at the frequency required by the APCD for the emission source using modern leak detection technologies 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.

3. All verified leaks at an O&GF shall be reported to the LCDHE and LGD within 24-hours of the detection of the leak.
4. 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.

5. 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.

6. 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.

E. Odors:

1. 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 Section 17.1.3.H.

2. Oil and gas operations shall comply with the CDPHE, AQCC, Regulation No. 2 Odor Emission, 5 Code of Colorado Regulations 1001-4.

3. 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.

4. 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.

5. 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. These odor control strategies may include the following:
   a. Odorants, that are not a masking agent, shall be added to chillers and mud systems.
   b. Operators shall not use odor masking agents or additives.
   c. Filtration systems and/or additives to minimize, not mask, odors from drilling and fracturing fluids shall be utilized in the drilling and flowback processes.
   d. Additives intended to eliminate odors generated by the operations of an O&GF shall not create a separate odor.
   e. Enclosed shale shakers shall be utilized to contain fumes from exposed mud.
   f. 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).
   g. Wipe down drill pipe as they exit the well bore each time.

F. Water Quality and Water Bodies:

1. 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, and demonstrate compliance with and implementation of standards in Sections 17.3.D. and 8.12 of this Code.
2. 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. It is recommended that the operator also post these reports online for public/access transparency.

3. The application shall provide documentation indicating how the COGCC water quality protection standards are being implemented.

4. 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.

5. New wastewater injection wells shall not be allowed.

6. The requirements of this Section 17.4.D shall not prevent discharges reviewed and permitted by the CDPHE Water Quality Control Division, the EPA, and the Army Corps of Engineers.

G. Spills and Releases:

1. A Spill Prevention Control and Countermeasure 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 Section 17.3.E.

2. An Emergency Response Plan shall be provided that includes evacuation plans and routes, inventory of emergency response supplies, notification requirements and annual open house training for emergency services personnel to become familiar with the site.

3. Secondary containment shall be required which is capable of holding 125% of the total capacity of on-site containment vessels and storage tanks.

4. Unloading areas shall be designed to contain potential spills or direct spills into other secondary containment areas.

5. 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.

6. Any spill or release of greater than 25 gallons on an O&GF, including those thresholds reportable to the COGCC, shall upon discovery, be immediately reported to the following Local Emergency Response Authorities in Larimer County:
   a. Larimer County Sheriff – Public Safety Answering Point (PSAP) (9-1-1)
   b. Larimer County Department of Health and Environment,
   c. Local Fire Department/District,
   d. Local Municipal Police Department if within in mile of a City or Town,
   e. Larimer County Oil and Gas LGD, and
   f. Larimer County Local Emergency Planning Committee (within 24-hours).

7. 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.

H. Noise:

1. A Noise Report and Mitigation Plan shall be required for all O&GF applications. The plan shall demonstrate how the operations will mitigate noise impacts to comply with
the noise standards contained in this Section 17.3.G. The report and plan shall include the following:

a. A three-day (one day being a weekend day) baseline noise analysis.

b. Modeled decibel levels for various phases of development shall be presented using contour maps to radii of 350 feet from the site of operation/noise source (per COGCC) or at the property line of an adjacent land use, whichever is closer.

c. A plan of proposed mitigation measures to be implemented by the oil and gas operations during all stages of compliance with the maximum permissible noise levels as listed in Section G.2 below.

2. Noise generated from O&GFs shall comply with the following maximum permissible noise levels appropriate for the zoning and adjacent land uses at determined by the County:

<table>
<thead>
<tr>
<th>ZONE AREA DESIGNATIONS</th>
<th>7:00 am to next 7:00 pm</th>
<th>7:00 pm to next 7:00 am</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential/Agricultural/Rural</td>
<td>55 db(A)</td>
<td>50 db(A)</td>
</tr>
<tr>
<td>Commercial</td>
<td>60 db(A)</td>
<td>55 db(A)</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>70 db(A)</td>
<td>65 db(A)</td>
</tr>
<tr>
<td>Industrial</td>
<td>80 db(A)</td>
<td>75 db(A)</td>
</tr>
</tbody>
</table>

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.

3. Decibel levels produced by the O&GF shall meet the identified level for the appropriate zoning area designation of the adjacent land use. Zones as defined by Article 12 – Noise abatement of the Colorado Revised Statutes (C.R.S.) 25-12-102 will be considered as part of the County’s determination for surrounding land uses.

4. In remote locations, where there is no reasonably proximate occupied structure or Designated Outside Activity Area (COGCC), the light industrial standard may be applicable as determined by the County.

5. Decibel levels shall be measured at least 350-feet from the boundary of the operation/noise source (from source or sound wall per COGCC) or at the property line of the adjacent land use, whichever is greater.

6. Construction of O&GFs, including drilling/well completions, recompletions, and pipeline installations, shall be subject to the maximum permissible noise levels specified for light industrial zones for the period within which construction is being conducted.

7. 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.

8. Motors, Generators, and engines shall be enclosed in acoustically insulated housings or covers.

1. **Dust:**

   1. **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 Sections 17.3.I and 8.11 of this Code.

2. 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.

3. 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.

4. Safety Data Sheets (SDSs) shall be provided with the application for any proposed chemical based dust suppressants.

5. 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.

J. **Access:**

1. **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 Section 17.3.E.

2. 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:

   a. 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.

   b. The access drive entrance shall include returns with a 30-foot radius.

   c. A mud and debris tracking pad shall be located at the end of the paved portion of the access drive.

K. **Chemical Handling:**

1. **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 Section 17.3.K.

2. 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”.

3. Drilling and completion chemicals shall be removed from the site within sixty (60) days of the drilling completion.

L. **Recycle, Reuse and Disposal of Fluids:**

1. **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 Section 17.3.L.

2. Drilling, completion flowback, and produced fluids shall be recycled or reused whenever
technically feasible.

3. 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.

4. Produced water shall be recycled or reused or shall be transported by pipeline unless easements are not available.

5. 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.

6. The requirements of this Section 17.3.L shall not prevent discharges and beneficial uses reviewed and permitted by the CDPHE Water Quality Control Division and the Environmental Protection Agency (EPA).

M. **Lighting and Visual Impacts:**

1. For all phases of the development of the site, the application shall demonstrate compliance with the visual and aesthetic rules of COGCC and the Larimer County Land Use Code for landscaping, fencing and lighting set forth in Section 8.

2. All O&GFs shall be painted with colors that are matched to or slightly darker than the surrounding landscape, and shall utilized paint with uniform, non-contrasting, nonreflective color tones based upon the Munsell Soil Color Coding System.

3. 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 Section 8.15, Lighting Standards.

4. For all phases of site development, fencing shall be installed for security and visual aesthetics of the use.

5. Sound or screening wall to mitigate for noise during well completion may be required if the O&GF is within 2,000 feet of residential buildings or lots, if electric requirement is appealed.

6. O&GF applications shall minimize removal of trees and vegetation on the site.

7. Landscaping and/or fencing for screening and visual quality as viewed from public rights-of-way and nearby residential areas shall be required within 6 months from the time of well completion and in accordance with requirements for the zoning district.

8. 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.

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**Note:** Environmental and health advocacy groups would like the next section, Well Plugging and Abandonment, to be more extensive and address noticing requirements and inspections after removal. The industry groups noted that this is down hole regulation and therefore not included in the SB 19-181 granted authority.

N. **Well Plugging and Abandonment:**

1. **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:
a. Removal of all equipment from the well site,
b. Restoration of the site surface to the conditions of the site reclamation plan,
c. Notice to the County LGD of the commencement and completion of such activity, and
d. 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.
e. Question: Should we include water testing/monitoring for a certain amount of time post plugging/abandoned wells to monitor that they are in sound condition and not leaking into water. This could be a condition of approval for certain sites (e.g., nearing high occupancy buildings, water reservoirs, drinking water wells.)

O. **Well Liquids Unloading:**
   1. 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.
   2. Approved manual unloading shall require on-site supervision of the uploading process.

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

Q. **Waste Disposal:**
   1. 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 Section 17.3.Q.
   2. Oil and gas facilities shall remain free of debris and excess materials during all phases of operation.
   3. Burning of debris, trash or other flammable material is not allowed.
   4. 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 if requested by landowner.

R. **Removal of Equipment:**
   1. 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.
   2. When not in use, or if no longer needed for on-site operations, all equipment not being used on the site shall be removed.

S. **Maintenance of Machinery:**
   1. Statewide Best Management Practices shall be used to prevent contamination of soils and stormwater runoff, including equipment and vehicle maintenance and fluid containment.
   2. There shall be no maintenance of field equipment involving hazardous materials within 300-feet of a water body.
3. Any fueling on-site shall occur over an impervious surface with a bermed secondary containment and sump in case of a spill and shall not occur during storm events.

T. Flow Lines, Transfer Lines, and Gathering Lines:
1. 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 4-feet deep and shall be of detectable material which could include the addition of tracer wire to ensure detection during buried utility locating.
2. 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 being proposed.
3. Coordinates of all flow lines, gathering lines, and transfer lines shall be provided.

U. Temporary Water Lines:
1. Temporary waterlines shall be used, unless development is not within a water service area.
2. Temporary waterlines shall be buried at all existing driveway and road crossings, or utilize existing culverts, if available.

V. Financial Assurance:
1. 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 and gas 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.
2. The Applicant shall, for the life of the use, carry customary and usual environmental liability insurance.

17.1. XX – Additional Application Requirements.
A. In addition to the items specified as required in Section 17.3., the applicant shall provide:
   1. A site inventory map.
   4. A surface use agreement.
   5. A statement verifying the legal right to extract the mineral resources.

17.4. – Appeals.
A. Section 22 of this Code shall provide direction for all appeals to standards, processes and provisions of this Section 17.

17.5. – Enforcement and Inspections.
A. 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 Section 12 of the Land Use Code. The County retains the right to seek whatever remedy or redress is legally allowable.
B. The County reserves the right to inspect the property for compliance.
17.6. – Fees and Security for Reclamation.
   A. The following fees are applicable to oil and gas facilities:
      a. A Capital Transportation Impact fee.

17.7. – Termination of Use or Modifications.
   A. No modification to an approved O&GF shall be made without obtaining appropriate land use
      approvals from the County.
   B. Upon termination of use, the O&GF shall be reclaimed pursuant to the reclamation plan
      provided.

17.8. – Definitions.
   A. Unless otherwise listed herein, the definitions found within the C.R.S. and Colorado Oil and Gas
      Conservation Commission (COGCC) regulations shall apply.
Attachment B: Summary of Oil and Gas Task Force and Community Input
Summary of Oil and Gas Regulations Task Force and Community Input

Overview
The Larimer County Commissioners created the Charter for Oil and Gas Regulations Task Force in March and assembled the group in May of 2019 to provide advice on effective regulations that will mitigate impacts of oil and gas facilities on land use and public health and address industry changes. The formation of the task force preceded work by the state legislature on SB 19-181 that was signed into law on April 16, 2019 but recognized the need to monitor rulemaking and other changes at the state that might affect local regulations. The local regulations will supplement State regulations.

The Task Force was set up to review and provide input on draft oil and gas regulations developed by County staff and provide a recommendation related to final set of oil and gas regulations. They also gave input regarding review procedures and standards.

Membership Appointment and Representation
The Board of County Commissioners assembled the 15-member task force to be diverse, balanced, and independent, including perspectives from environment and conservation; industry; landowners and agricultural operators; community members, and other expertise. The Task Force also had non-voting liaisons from the Agricultural Advisory Board, Open Lands Advisory Board, Planning Commission, Rural Land Use Board, and Board of Health.

Five Task Force Meetings
The Task Force met five times between June and October 2019 and covered the following topics. A summary of each meeting follows below.

1. Introduction, purpose and charter, and topics for regulations (June 20, 2019)
2. Introductory presentations and initial list of regulatory topics, (July 18, 2019)
3. Specific standards to include and purpose statement (August 15, 2019)
4. Refined standards and procedures (September 25, 2019)
5. Recommendations for standards and procedures (October 30, 2019)

Other Public Events
The County held an open house on Sept. 12 to get feedback on initial standards. Additionally, several online questionnaires provided opportunities for community members to give input:

1. A questionnaire in August resulted in 815 responses about general topics for the regulations and approaches to community engagement,
2. A question form in September led to 35 responses about detailed topics presented at the open house, and
3. An input form in November yielded 13 responses regarding the first draft/outline of the regulations.

Interested stakeholders also submitted letters and information which have been summarized for the Planning Commission and Board of County Commissioners to review. Another opportunity for feedback on the draft regulations will be held in January of 2020 prior to the public hearings in February and March.

Other Agency Roles and Invited Guests
The Task Force also heard presentations regarding oil and gas regulation process and technical information from:

- Frank Haug, County Attorney Office,
- Matt Lafferty and Lesli Ellis, County Community Development Department,
- Marc Morton and Mike Leonard, Colorado Oil and Gas Conservation Commission (COGCC),
- Tom Butts, County Health Department,
- Sean Hackett, Colorado Department of Public Health and Environment (CDPHE), and
- Meegan Flenniken, County Natural Resource Department.

The project webpage (www.larimer.org/planning/oil-and-gas-regulations/resources) also included a number of resources for staff and the task force, including links to SB 19-181, COGCC regulations, and examples from other communities’ regulations.

**Summary of Task Force Meetings and Input**

**Meeting #1**
The June meeting was introductory, so the Task Force did not provide input regarding the draft standards.

**Meeting #2**
At the July meeting, staff reviewed Task Force homework regarding regulatory topics and asked members to prioritize the topics for discussion at the meeting, and the order was as follows:
1. Land Use
2. Setbacks
3. Environmental
4. Nuisance Issues
5. Transportation

The Task Force then gave extensive input regarding ideas for facility siting, land use, setbacks, environment, as well as desired community engagement at this meeting.

**Meeting #3**
At the August meeting, Task Force members gave feedback on a draft purpose statement (generally agreeing with what was presented and suggesting some additions such as reference to wildlife, consistency with SB 19-181, and referencing other County examples) and then continued the group discussion on specific code standards and regulations (i.e., transportation impacts and site design).

**Meeting #4**
At the fourth meeting in September, the Task Force had an extensive discussion about setbacks and procedures. In a straw poll, most thought a tiered review process may make sense but expressed concerns that the 500-foot threshold might push most applications into a higher review process. Most agreed with setbacks of some form, but most did not support 500-feet or larger setbacks. Less than half supported larger setbacks from residential buildings (e.g., 1,000 feet).

The group also talked about air quality and continual air monitoring and looked at specific regulations proposed at the open house and a majority generally supported:
- Requiring a plan for leak detection, reporting and repair,
Attachment B

- Requiring feasibility analysis for the electrification of all permanent operation equipment including engines/motors,
- Encouraging the application of tankless production techniques if feasible, and
- Requiring a dust mitigation plan.

Less than half of the Task Force also supported pipelines for transmission of resources, water delivery, and third-party air quality monitoring, among other measures.

Meeting #5

In October— the final formal meeting of the Task Force, the group reviewed and gave feedback on an initial draft/outline of the proposed regulations, generally supporting the direction of the regulations and seeing them as fair except in a few areas. They recommended the following changes:

- Include language about mineral rights of the owner and surface estate rights in the Intent and Purpose section.
- Most would like to reconsider the Special Review process for all application types and add a tiered approach so that certain types of applications might be eligible for administrative approval (e.g., for updating equipment or smaller facilities).
- Some members would like to see more opportunities for public involvement (e.g., at the neighborhood meeting stage).
- Most saw concurrent review with the state as appropriate.
- Some noted that the language regarding “economically infeasible or practical” needs clarification.
- Specific standard suggestions included:
  - Water produced for different reasons. That section might need work. It’s not always feasible to use pipelines. There was some concern about a complete ban on wastewater injections as currently written.
  - Put more thought into the chemical list or remove it.
  - Clarifying what’s required in financial assurances.
  - Clarification on the relationship of these local regulations with the state – when stricter standards would apply and avoiding duplication.

Summary of Other Input that is Attached

Other groups that provided feedback (alphabetically) include:

1. Bedoski, Mary - comments
2. Colorado Oil and Gas Association (COGA) (letter on Dec. 1)
3. Colorado Park and Wildlife Department of Natural Resources (letter on Dec. 5)
4. Colorado Petroleum Council (CPC) comments
5. Environmental Science Advisory Board (ESAB) working group members
6. King and Wellington Operating Companies (letter on Dec. 1)
7. League of Oil and Gas Impacted Coloradoans (LOGIC) and Larimer Alliance for Health, Safety & the Environment (letters on Nov. 19 and Dec. 19)
8. Joswick, Josh - comments
9. Little, Ally - comments

Summary from Survey Monkey in November 2019

The Survey Monkey responses also included input from Colorado Department of Public Health and Environment (CDPHE), Platte River Power Authority (PRPA), Larimer Alliance, King and Wellington, and other individuals.
Attachment C: Public Comments
Note: This will be a new Section in the Larimer County Land Use Code. This is a preliminary outline of draft oil and gas regulations and is not all inclusive.

To keep the Task Force Committee discussion on track, please focus comments to the intent and purpose of the standards and avoid refraining from making small edits.

17.0. – OIL AND GAS FACILITIES

17.1. – Intent and Purpose.

A. **Intent and Purpose:** The Intent and purpose of this section is to establish and administer necessary and reasonable regulations for oil and gas operations, including but not limited to pre-production, production and reclamation, in a drilling and production manner that protects and promotes the health, safety, and general welfare of the residents and environment of the County. To the extent practicable these regulations will require applications for oil and gas operations to demonstrate how adverse impacts will be mitigated to achieve a minimal negative impact on the environment, wildlife and residents of the County.

B. **Authority:** Pursuant to the authority granted to the County in C.R.S. 29-20-104(1) the review of such applications may include, without limitation:
   1. Land Use,
   2. Location and siting of oil and gas facilities,
   3. Impacts to public facilities and services,
   4. Water quality and source, noise, vibration, odor, light, dust, air emissions and air quality, land disturbance, reclamation procedures, cultural resources, emergency preparedness, and coordination with first responders, security and traffic and transportation impacts,
   5. Financial securities, indemnification and insurance as appropriate to ensure compliance with the requirements of Larimer County, and
   6. All other nuisance-type effects of oil and gas development.

C. **Applicability:** These regulations shall be applicable to all oil and gas drilling and production activity commenced on any property in Larimer County, after the date of ____________, regardless of what zoning district the property is situated in.

D. Are exploration wells and/or other exploration activities going to be addressed? An exploration well carries many of the same risks and nuisance issues of a multiwell pad though at a lesser scale. Can we look at this? Perhaps administrative review would be appropriate for any exploration wells. We want to be looking out for sensitive water features, residents, cultural resources etc and would want to know the operator took these things into account.

D. **Severability:** If any sections, 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 the section shall not be affected thereby and is hereby declared to be necessary for the public health, safety and welfare.

17.2. – Required Process and Permits

I agree with Richard Alper who mentioned we should include a statement about if the state’s regulations are more stringent, those would apply over the county and vice versa.
A. Required Process:
   a. Oil and gas drilling and production activities in Larimer County shall require Special Review approval (Section 4.5). Should we state when the approval must be obtained, i.e. prior to submittal to Colorado Oil and Gas Commission (COGCC)?
      a. I still agree with Special review for all applications. We have not established enough detailed criteria at present to go through administrative review and judgement is needed for all applications. Prior or concurrent review makes most sense to me. I think county applications will have more potential for modifications than the state would so it does not make sense to me to wait until the state has completed their processing.

B. Supplemental Review Criteria for Oil and Gas Facilities:
   a. In addition to the Special Review criteria found in Section 4.5.3 of this Code, each oil and gas facility shall be approved only if it meets the following criteria:
      i. It complies all the requirements of this Section 17.
      ii. Reasonable and necessary mitigation steps have been taken to protect the public health, safety, and welfare and environment
      iii. PLEASE include specific requirements for neighborhood meeting(s) and notification radius to address public concern and interest (I recommend at least 2500' and all mineral rights owners in spacing unit) with a timeline that requires notification and meeting prior to COGCC comment period opening or at least closing and at least 60 days prior to planning commission and BOCC hearings. The notification issue and delays in public awareness is a major concern and if not properly structured/implemented will result in high administrative needs and costs put back on the county. Along with all this, I think it will be a wise investment to have a user-friendly transparent county oil and gas webpage and including notice of these meetings on the webpage.
      iv. Can we please specify “The county will process each site or 2A application separately”? Specifically, comprehensive drilling plans (or similar) to review multiple pads for a single operator at one time are my concern. These do not allow for adequate time dedicated to evaluating each individual site for the county and do not allow adequate time for public involvement and input. If we can’t restrict this for whatever reason, please put some added specifications for any comprehensive drilling plan applications- i.e. Processing time may be extended by 3-4 months for applicants including more than 1 site in their applications or submitting applications concurrently for individual sites. Limit of 3?? sites at a time. Comprehensive drilling plans, in my opinion, only serve the operator and would not benefit the county or public in a meaningful way. I don’t imagine comprehensive drilling plans would be common place in Larimer but I’d like to see this loophole addressed.

Aurora recently dealt with something of this nature: https://sentinelcolorado.com/news/sentinel-biz/aurora-lawmakers-ok-pact-for-300-plus-oil-and-gas-wells-on-6-4-vote.

ii.

C. Permits required:
   a. Access permits
b. Building permits as required for structures

c. Development Construction permit including proposed flowlines, gathering lines?

d. All federal, state and local permits for oil and gas operations

17.3. – Standards Required for all Oil and Gas Facilities

A. General:
   1. All applicants are responsible for compliance with applicable federal, state and local laws and regulations for the operation of Oil & Gas facilities.

      Maybe add: Including any future changes to state and federal laws that may arise after these local regulations are adopted

      Oil and Gas facilities should be located to minimize impacts on agricultural operations.

      This is bizarre to me. I agree with minimizing impacts on agricultural operations/time of year issues, but there are many other things to be looked at as mentioned in the intent and purpose section. If we mention this, do we need to mention other things like wildlife habitat or migrations, residents, and school zones, etc? Maybe this doesn’t belong in the “General” category but could be mentioned elsewhere.

   2. Can we please set a time limit on operations? For some of these pads operators will complete a couple wells and then come back multiple times for additional well completions significantly extending the time of high impact activities. 18-24 months from beginning of construction to have wells into production phase? Time extension requests will need to go through another review? Please address this need for some structure and time constraints and make it a required portion of application to have a proposed timeline for completion of all wells on site (I know COGCC asks proposed date of commencement, but no other details are listed)

B. Air Quality:

   1. The use? shall comply with existing federal and state laws and regulations applicable to its operations and emission sources as well as any future laws and regulations adopted by the Colorado Air Quality Control Commission (AQCC).

   2. Air contaminant emission sources shall apply for and comply with the permit and control provisions prescribed by the Colorado APCD C.R.S. tit. 25, Art. 7 (C.R.S. § 25-7-101 et seq.) and the rules and regulations promulgated by the AQCC all applicable emission sources.

   The exemption of a federal permit for the first 90 days is an issue. Continuous air monitoring can address and track this data and I would ask the county consider it’s options to require this. It can be complicated, but given our poor air quality here, I think it warrants an up-to-date air monitoring and data collection system. Maybe this isn’t in regulations but the cost to the county for implementing such a system is incorporated into application fees or a separate “air impact fee”

   3. Environmental Protection Agency (EPA) Reduced Emission Completions shall be used for all completions and workovers following hydraulic fracturing, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system. I agree this may not be “economically feasible or practical” for all applicants. If we can’t eliminate this, can we include a statement with the items we leave with this disclaimer “economically infeasible or impractical” under air quality that states applicant
should be prepared with alternative emission reduction plan they are able to implement if unable to comply with any of these specific items. (This gives some leeway but also puts a responsibility and expectation on the applicant that says this is important and you need to do something. Even if it’s planting trees, at least require some effort here)

4. Closed loop, pitless drilling, completion systems without permanent on-site storage tanks must be utilized for containment and/or recycling of all drilling, completion, and flowback fluids, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system. All emissions shall be routed to and controlled by a flare or combustor operated with at least 98% destruction removal efficiency.

I mentioned this during our meeting, but please look at this. I think this needs to be a requirement. Uses less water and drilling fluids, more environmentally friendly and likely is cheaper for the operator. And even if it costs a bit more upfront, we need to require some of these BMPs if the point of county regs is to enhance state regs.


https://earthworks.org/issues/alternatives_to_pits/

5. Oil and Gas facilities shall be equipped with electric-powered engines for motors, compressors, drilling and production equipment, and pumping systems, unless it is demonstrated by the application materials the utilization of such equipment is not economically feasible or practical. Please require grid mapping for those that say it is not practical. Please define a distance to grid that is deemed practical so there is a standard here

6. During construction and exploration, the applicant shall demonstrate that the site, including traffic and construction equipment, complies with all AQCC standards. How will this be demonstrated? Require applicant to meet with county prior to or during these phases? County inspection paid by who?

7. Oil and gas operators shall respond to air quality action day advisories posted by the CDPHE for the front range area by implementing air reduction measures, which should include:
   a. Minimizing vehicle traffic and engine idling;
   b. Reduced truck and worker traffic;
   c. Delay vehicle refueling;
   d. Suspend or delay use of fossil fuel powered ancillary equipment;
   e. Postpone construction or maintenance activities; and
   f. Postpone will maintenance and liquid unloading activities that would result in emission to the atmosphere.

8. I would like to add no flaring or venting except in emergency situations (harmful to air and wasting of resources/royalties to mineral owners), and all emergency venting or flaring must be reported within 12? Hours to the county along with a plan to remedy the situation

All emergency venting and flaring will be shared on the county website within 24 hours of occurrence.
9. Require use of no/low bleed pneumatic devices and have a plan/timeline for required replacement of devices. (I know this is mentioned as a BMP further down)


C. Leak Detection and Repair:
   1. Oil and gas facilities shall at a minimum conduct semi-annual leak detection and repair (LDAR) inspections using modern leak detection technologies and equipment. One of the semi-annual LDAR inspections shall include a five-day notice to the County Local Government Designee (LGD) and County Health Department inviting them to observe, at their discretion, the inspection. Please have more county oversight and involvement in this. Ideally more frequent 3rd party monitoring contracted by the county, paid for by the operator (or account for and include this cost in application fee somehow). Aerial infrared monitoring can be very cost effective to cover a large number of operations. Can we please look into this and what the cost estimate would be on a per well basis for at least quarterly monitoring? Perhaps more frequent monitoring for the 1st two years of operation with the ability to go to the minimum listed if operator has no violations during that time.
   2. Verified leaks to an oil and gas facility shall be reported to the County LGD and County Health Department within 24 hours of the discovered leak. 12 hours
   3. All verified leaks shall be repaired within 72 hours, unless technically or operationally infeasible. 24 hours, unless technically... And operator must present repair plans and ongoing monitoring plans to the county and local emergency response department.
   4. Equipment leaks that pose or may pose an imminent hazard to persons, property, wildlife or the environment shall be shut down and not allowed to operate until the operator has provided evidence that the leak has been repaired. Again, in consultation with local emergency response authorities

D. Spills and Releases:
   1. Any spill or release at an oil and gas facility, including those reportable to the COGCC, shall be immediately reported, no later than 24 hours I support 8-12 hours as was mentioned at the task force meeting after discovery of the event, to the following local emergency response authorities in Larimer County:
      a. Larimer County Sheriff
      b. Larimer County Department of Health and Environment
      c. Larimer County Local emergency Planning Committee
      d. Larimer County Oil and Gas LGD
      e. Local Municipal Police Department if within one mile of a city or town
      f. Local Fire Department
   2. All spills or releases shall be cleaned up to the satisfaction of the local emergency response authorities, listed in item 1 above. Remediation of spills or releases reportable to the COGCC may be deferred to the COGCC and CDPHE? I think this is something the county has authority over with SB181. I'd prefer the county remain actively involved regardless even if we utilize state remediation standards.
   2. In addition, all spills and ongoing remediation details will be shared on the county website within 24 hours. I think transparency of incidences and accountability
creates further motivation to prevent spills in the first place.

E. Well Liquids Unloading:
1. Best management practices, including artificial lift, automated plunger lifts and at least 90% emissions when utilizing combustion to control venting shall be employed at all facilities.
2. Approved manual unloading shall require on-site supervision of the uploading process. What is this level of on-site supervision? Do they just need to be on site at the time or do they need to actually observe all aspects of this operation? Is it just another worker supervising or a person of authority, like a certified supervisor? I think this should be specified and if appropriate, require someone with training specific to this area and indicate how the supervision should occur and perhaps any specifics that are concerning about well liquids unloading- i.e. to minimize spills and/or to ensure worker safety and safe handling of liquids.

F. Noise:
1. A three-day (one day being a weekend day) baseline noise analysis from all receptors within 350 feet of the proposed use, or the property line, whichever is closest to the proposed oil and gas facility, shall be provided.
2. Predicted decibel levels shall be provided for various phases of development, as measured 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. Can we specify including noise from compressors? These can be quite loud. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning of other local land use designation.
3. Proposed mitigation measures demonstrating that the oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County:
4. Decibel levels shall meet the identified level for the appropriate activity and adjacent land use. Decibels shall be measured at 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning or other local land use designation.
5. Oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County:

<table>
<thead>
<tr>
<th>ZONE</th>
<th>7:00 am to next 7:00 pm</th>
<th>7:00 pm to next 7:00 am</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential/Agricultural/Rural</td>
<td>55 dB(A)</td>
<td>50 dB(A)</td>
</tr>
<tr>
<td>Commercial</td>
<td>60 dB(A)</td>
<td>55 dB(A)</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>70 dB(A)</td>
<td>65 dB(A)</td>
</tr>
<tr>
<td>Industrial</td>
<td>80 dB(A)</td>
<td>75 dB(A)</td>
</tr>
</tbody>
</table>

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 dB(A) for a period of not to exceed fifteen minutes in any one-hour period.
Construction projects (pipeline or facility construction/installation) shall be subject to the maximum permissible noise levels specified for industrial zones for the period within which construction is to be completed pursuant to any applicable construction permit issued by proper authority or, if no time limitation is imposed, for a reasonable period of time for completion of project.

I know noise complaints occur with COGCC even at allowed decibel levels. This is not usually just a constant noise, the intermittent nature of the noise with drilling, hydraulic fracturing and associated truck traffic can be very disturbing to residents trying to sleep and wildlife. Couple that with odors, light pollution and vibrations that come with these operations. How are we considering or addressing these cumulative impacts? Consider adding “hours of operation may be restricted based on surrounding land uses and potential impacts to residents and wildlife” or further specify to say if occupied buildings within 1500 feet, school zone, etc or sensitive wildlife habitat within 1000 feet hours of operation may be restricted.

Consider vibrational impacts as a separate section. I’m not sure if the county has vibrational standards in code, I didn’t see anything, but this is a separate issue with O&G operations that is not always adequately addressed with state minimum setbacks.

G. Odors:

1. Oil and gas operations shall be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII.
2. Operations shall prevent odors from oil and gas facilities from affecting the health and welfare of the public during development activities including drilling, fracking, and flowback to the extent reasonably possible.
3. A system shall be established for immediate response to odor complaints that includes options for ceasing operations, notification of affected residents, and temporary relocation of residents until the source of the odor is identified and resolved.
4. We encourage the Operator to communicate the schedule/timing of well completions activities to residents I agree with this first part. However, I don’t think it’s unreasonable to require communication and not just encourage. It’s minor but could go a long way with public and alleviate inquiry burden on county staff. I’d like to see that information also readily available on county website, which could allow for voluntary shutting of windows and air intakes or temporary relocation. This last part concerns me. If it’s that bad people can’t have their windows open or would need to relocate, that is too much of an imposition and does not fit with the application being approved under the intent and purpose of “minimal negative impact” or under the review criteria for special review applications. Well drilling and completion timeline can be highly variable and if not all wells are drilled and they come back to do more later, operations can extend intermittently for years. Perhaps you eliminate this last part of the statement, but require the communication of schedule. Then each resident could use that information however they see fit but please specify all changes to schedule must also be communicated with county and residents within so many feet as the operator becomes aware of these changes.
H. Dust:
   1. Best management practices for the mitigation of dust associated with on-site and traffic activities shall be employed at the facility.
   2. Produced water and other process fluids shall not be used for dust suppression.
   3. Safety Data Sheets (SDS) shall be provided with the application for any proposed chemical based dust suppressants.
   4. Water only, unless otherwise approved by the County Health and Engineering Department, will be used for dust suppression activities within 300 feet of the ordinary high-water mark of any body of water.

I. Access:
   1. 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:
      a. The first 50 feet of access drive from the edge of pavement of the adjacent road will be paved and the remaining portions of the access drive shall be composed of a minimum of 6 inches of compacted Class 5 road base. Andy Peterson made a good point with inability to pave in winter months and listing appropriate alternatives is reasonable. Please put some time of year or weather restriction disclaimer with the alternatives.
      b. The access drive entrance shall include returns with a 30-foot radius.
      c. The access drive shall be treated with Magnesium Chloride during the entire construction phase, and any time there after when the level of use exceeds 200 vehicle trips per day. I appreciated Andy Peterson’s input on this. However, water conservation is also a concern and if water is insufficient or would need to be used in great quantity and MgCl can be used as an environmentally safe option, I support this as written.
      d. A mud and debris tracking pad shall be located at the end of the paved portion of the access drive.

J. Chemical Handling:
   1. Prior to any hydraulic fracturing activity, the operator shall provide the County with a copy on the chemical disclosure registry form provided to the COGCC pursuant to the COGCC’s “Hydraulic Fracturing Chemical Disclosure”.
   2. Drilling and completion chemicals shall be removed from the site within sixty days of the drilling completion. I agree a shorter time period like 30 days is appropriate. It just increases risk of spills and contamination to have them onsite longer than necessary.
   3. The following toxic, including orally toxic chemicals shall not be added to the hydraulic fracturing fluid:
      a. Benzene
      b. Lead
      c. Mercury
      d. Arsenic
      e. Cadmium
      f. Chromium
      g. Ethylbenzene
      h. Xylene
      i. 1,3,5-trimethylbenzene
      j. 1,4-dioxane
k. 1-butanol
l. 2-butoxyethanol
m. N,N-dimethylformamide
n. 2-ethylhexanol
o. 2-mercaptoethanol
p. Benzene, 1, 1'-oxybis-, tetrapropylene derivatives, sulfonated, sodium salts
q. Butyl glycidyl ether
r. Polysorbate 80
s. Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides
t. Bis hexamethylene triamine penta methylene phosphonic acid
u. Diethylenetriamine penta
v. FD&C blue no 1.
w. Tetras (triethanolaminato) zirconium (IV) (TTZ)

Sean Hackett’s, CDPHE, recommendations in response to request for recompletion of a pad in Larimer County, Prospect Energy MSSU #30-8 references this chemical list, which is from CU’s AirWaterGas water quality team. I’m not completely sure of the background of this list, but I support it as research-based. I would also be interested to see if there is data on chemical combinations that should be avoided. Thomas Borch may have research on this or know if some exists. I think this is equally as important to look into as individual chemicals. I would also support reporting of all spills of these chemicals and disclosure of all chemicals, including proprietary, if a spill does occur. (I’m not certain this is required with current state regs)

K. Recycle, Reuse and Disposal of Fluids:
1. Drilling, completion flowback and produced fluids shall be recycled, unless technically infeasible.
2. Exploration and production waste may be temporarily stored, not to exceed two weeks, in tanks while awaiting transport to licensed disposal or recycling sites.
3. Produced water shall be transported by pipeline unless economically or technically infeasible.
4. I do have concerns about irrigation with any water previously used or produced. I’d ask the county look into some standards in regards to irrigation and release to surface water, even if it’s treated. I know the state has rules with this, but because it impacts surface we should have authority. If we aren’t allowing for dust suppression, why would we allow for irrigation? That doesn’t make sense to me.
5. Research showing negative impacts when produced water used to irrigate crops
   https://pubs.acs.org/doi/10.1021/acs.estlett.9b00539

L. Water Bodies:
1. The applicant shall provide documentation to the County documentation, as required by the COGCC, demonstrating how the COGCC water quality protection standards are being complied with.
2. The Larimer County Health Department shall be provided with all water source tests; that are typically submitted to the COGCC or CDPHE.

3. Proposed oil and gas operations proposed with in a flood plain shall require review and approval of the Floodplain Permit prior to the Board of County Commissioners hearing for an oil and gas special review application.

4. Produced water disposal via wastewater injection wells shall not be allowed. I agree with this within Larimer County, and within ½ mile of our boundary.

5. Disposal of drill cuttings. I support county regulations for safe, out of county disposal of these, as well, though I’m not sure it should go in this section.

6. I support increased protections and testing standards beyond state regs for ground and surface water sources. Thomas Borch mentioned in one of our meetings how slowly ground water travels and inadequacies of current testing standards due to this. Given the importance of the Big Thompson and Poudre river, I think we need to look at enhanced water monitoring designed and monitored by someone with expertise outside of the industry.

7. I support preservation of our water resources and would ask the county prohibit selling of county owned water rights for use in fracking.

M. Visual:
1. The application shall demonstrate compliance with the visual and aesthetic rules of COGCC and the Larimer County regulations for landscaping, fencing and lighting for all phases of the development of the site.

2. All oil and gas facilities shall be painted with colors that are matched to or slightly darker than the surrounding landscape, and shall utilized paint with uniform, noncontracting, nonreflective color tones based upon the Munsell Soil Color Coding System.

3. The location of all outdoor lighting shall be designed to minimize off-site light spillage and glare.

4. Fencing shall for all the phases of an Oil and Gas facility development to ensure the security and visual aesthetics of the use.

5. Landscaping for screening and visual quality from off-site shall be required within 6 months from the time of well completion.

6. O&G Oil and Gas facility applications, including access roads serving the facility, shall demonstrate how compliance with weed control requirements of the County Weed District and Forestry Services Department will be met.

7. I don’t see sound walls mentioned. Is this part of “fencing” in #4? From a noise, dust, light pollution, safety and visual standpoint, is this something we should require? I spoke with a resident who had horses impacted by lack of sound walls on 2 sides at a site in Larimer County. So COGCC standards may not be enough. I support requiring sound walls on all sides.

N. Well Plugging and Abandonment:
1. Well abandonment and reclamation shall comply with the COGCC rules, and shall include the following:
   a. Removal of all equipment from the well site,
b. Restoration of the site surface to the conditions of the site reclamation plan,
c. Notice to the County LGD of the commencement and completion of such activity, and
d. 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.

O. Flammable Material:
   1. The location of flammable materials on site shall conform to all COGCC safety standards and local fire codes.
   2. A minimum 25-foot buffer, free of weeds and dried grasses, shall be required around anything flammable.

P. Waste Disposal:
   1. Oil and gas facilities shall remain free of debris and excess materials during all phases of operation.
   2. Burning of debris, trash or other flammable material is not allowed.

Q. Removal of Equipment:
   1. There shall be no permanent storage of equipment on the site of an oil and gas facility.
   2. When not in use, or no longer needed for on-site operations all equipment not being used on the site shall be removed.

R. Maintenance of Machinery:
   1. There shall be no maintenance of field equipment involving hazardous material within 300 feet of a water body.
   2. Any fueling on-site shall occur over an impervious surface and shall not occur during storm events.

S. Flow Lines, Transfer Lines and Gathering Lines:
   1. All off-site lines transporting process materials, production wastes, product and any other items used 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.
   2. The location of pipelines shall be evaluated on a case by case basis, with determine locational factor being the size and type of pipeline being proposed.
   2.3. Coordinates of all flow lines, gathering lines, and transfer lines shall be provided.

T. Temporary Water Lines:
   1. Temporary waterlines shall be used, unless technically infeasible.
   2. Temporary waterlines shall be buried at all existing driveway and road crossing, or utilize existing culverts, if available.

U. Financial Assurance:
   1. The operator Applicant must demonstrate the financial capability to reclaim all disturbed areas during each phase of the site development and following termination of the oil and gas operation on the site. This is a concern for the life of a well which could be 30–40
years, do they just have to demonstrate this at the beginning of operations? This is why bonding is so important.

2. The operator/Applicant must, for the life of the use, carry environmental liability insurance for gradual all potential pollution events.

2.3. Adequate per well bonding to cover all costs of remediation. State standards do not adequately cover costs. Or consider an “escrow fund” to cover anticipated costs, where the operator has to put in so much per year for the first 5 years, with a certain amount held until plugging and abandonment occurs. Somehow the short fall needs to be accounted for due to the volatility of this industry and not putting that potential cost burden on the tax payers.

17.4. Guidelines for Oil and Gas Developments

A. Applications for oil and gas facilities are strongly encouraged to incorporate the following guidelines (best management practices). Where reasonably necessary, the County may require some or all of the following guidelines depending on the location and characteristics of the proposed facility.

1. To mitigate the adverse impacts of air emissions generated by oil and gas facilities, operator/Applicants are encouraged to:
   a. use tankless production techniques,
   b. use zero emission dehydrators,
   c. use pressure-suitable separator and vapor recovery units,
   d. use no-bleed continuous and intermittent pneumatic devices (please require this, it’s feasible), or alternatives such as replacing natural gas with electric or instrument air, or by routing discharged emissions to closed loop systems of processes,
   e. use automated tank gauging, and
   f. eliminate all flaring except during emergencies or upset conditions, which shall be reported to the County (see std ___). See my comments under 17.3B 8

2. To mitigate the adverse impacts of odor generated by oil and gas facilities, operator/Applicants are encouraged to:
   a. Add odorants that are not a masking agent, to adding chillers to the mud systems,
   b. Using filtration systems or additives to minimize odors from drilling and fracturing fluids except that the operator/Applicant shall not mask odors by using masking fragrances,
   c. Enclose shale shaker to contain fumes from exposed mud where safe and feasible,
   d. Wipe down drill pipe each time drilling operation “trips” out of hole,
   e. Increasing additive concentration during peak hours provided additive does not create a separate odor. Additive must be used per manufacturer’s recommended level,
   f. Use minimum low odor Category III drilling fluid. This could include non-diesel based drilling muds including drilling muds that are low odor and do not contain benzene, toluene, ethylbenzene or xylene (BTEX). I would like this to be required. It’s not unreasonable to say no hydrocarbon based drilling fluids, or
   g. Apply ‘green frac’ methods, utilizing only sand and water as fracking materials or other ‘green frac’ materials agreed upon between the community and industry, and...

Commented [LMK33]: ?

Commented [LMK34]: Is this possible? Last I looked (a long time ago) this was cost prohibitive and not the best technology?
h. The Operator Applicant is encouraged to communicate the schedule/timing of well completions activities to residents, which could allow for voluntary shutting of windows and air intakes or temporary relocation. Please require this as mentioned under 17.2 B

3. To mitigate the impacts of multiple pipeline corridors, Operator Applicants are encouraged to consolidate and share pipeline easements and corridors, unless it is technically infeasible.

17.5. - Application Requirements

A. In addition to the submittal requirements necessary to demonstrate compliance with the applicable Sections of the Land Use Code, applications for oil and gas facilities shall also include, when relevant, the following:
   a. A Site Inventory Map.
   d. A Noise Mitigation Plan.
   f. An Odor Mitigation Plan.
   g. A Hazardous Material Plan.
   h. A Dust Mitigation Plan.
   i. A Site Security Plan.
   j. A Production Water Supply Plan.
   k. A Containment and Spill Plan.
   m. A Reclamation Plan.
   n. A Surface Use Agreement.
   o. A statement verifying the legal right to extract the mineral resources.
   o. p. Water and product transport plan

17.6. - Appeals

A. Any decision made pursuant to this section may be appealed pursuant to Section 22 of the Larimer County Code.

17.7. - Enforcement and Inspection

A. Applicants shall demonstrate compliance with the Larimer County Land Use Code, and with this Section. Failure to maintain compliance with the County approval of an oil and gas facility may result in the revocation of the approval pursuant to the procedures in Section 12 of the Land Use Code. The County retains the right to seek whatever remedy or redress is legally allowable.

B. The County reserves the right to inspect the property for compliance.

17.8. - Fees and Security for Reclamation

A. The following fees are applicable to oil and gas facilities.
   a. TBD

B. An impact fee will be assessed as follows:
   a. Capital Transportation Impact Fees. Sliding scale based on number of wells and use of pipeline?
C. Each application shall include financial security for the purpose of ensuring maintenance and reclamation may be accomplished if the applicant is unable or unwilling to perform its obligations. Adequate per well bonding as mentioned under 17.3 U

17.9. - Termination of Use or Modification.
A. No modification to an approved oil and gas facility shall be made without obtaining appropriate land use approval from the county.
B. Upon termination of use, the oil and gas facility must be reclaimed pursuant to the reclamation plan provided.

17.10. - Definitions.
A. Unless otherwise listed herein, the definitions found within the Colorado Revised Statutes and COGCC regulations shall control.

17.11 Setbacks. Required minimum setbacks for operator (These really should be a priority and need to be addressed, too much ambiguity without these)
A. Residential
B. Water resources
C. Schools/day care
D. High occupancy buildings, schools, hospitals etc
E. Open space and recreational areas
F. Reciprocal setbacks for any new development from existing, proposed or permitted oil and gas facilities

Commented [LMK37]: In addition to any COGCC?
Mary Bedosky
December 1, 2019

VIA EMAIL – NO ORIGINAL TO FOLLOW

Matt Lafferty, Principle Planner
Lesli Ellis, Community Development Director

Larimer County
200 W. Oak St.
Fort Collins, CO 80521

RE: Colorado Oil & Gas Association – Comments on Larimer County’s draft Oil and Gas Regulations, version 1.

Dear Larimer County staff,

The Colorado Oil & Gas Association (“COGA”) respectfully submits comments to Larimer County for consideration in response to the November 21\textsuperscript{st} open house discussion regarding the County’s draft Oil and Gas Regulations, version 1 (“Proposed Regulations”).

COGA has identified several areas of concern within the Proposed Regulations, as shared in person on November 21. Below you will find a summary of some key items:

Section 17.2 – Required Process and Permits
- COGA would like to see language outlining administrative approval tract as previously outlined and has included a suggested model. Please see attached.
- Special Review can run concurrent to state process, but would prefer Larimer approval prior to COGCC approval.

Section 17.3.E – Well Liquids Unloading
- Who supervises this process?

Section 17.3.F – Noise
- Clarify measurements are to be from outside soundwall.

Section 17.3.G – Odors
• Replace #2 and #3 with, “Operator shall submit an odor mitigation plan that includes a process for response to odor complaints.”

Section 17.3.J – Chemical Handling
• Industry maintains that banning specific chemicals used in the hydraulic fracturing process represents downhole and is therefore outside the regulatory authority of local governments.

Section 17.3.L – Water Bodies
• Clarify #4 pertains to disposal within Larimer County

Section 17.3.N – Well Plugging and Abandonment
• Remove “gathering lines” as those are owned by the midstream company and the company doing the P&R cannot agree to regulatory requirements for infrastructure they do not own. Furthermore, because Larimer County does not have a certification agreement with PHSMA, it is preempted by federal and state law from regulating gas gathering lines.

Section 17.3.S – Flow Lines, Transfer Lines, and Gathering Lines
• Same as above. #3 should outline flowlines only

Section 17.3.U – Financial Assurance
• What is the mechanism for demonstrating financial capability? Please clarify.

COGA and its members respectfully request that the County give due consideration to their reasonable and practical concerns raised herein and incorporate the provided recommendations in the final approved regulations.

COGA continues to offer itself as a resource to the County. Please contact me with any questions you may have or to schedule a meeting.

Sincerely,

Jason Grubb
Community Outreach Coordinator

Enclosures:
• Proposed Administrative Approval process

cc: Rich Coolidge – Director of Regulatory Affairs, COGA
Colorado Oil and Gas Association (COGA)
Note: This will be a new Section in the Larimer County Land Use Code. This is a preliminary outline of draft oil and gas regulations and is not all inclusive.

To keep the Task Force Committee discussion on track, please focus comments to the intent and purpose of the standards and avoid refrain from making small edits.

17.0. – OIL AND GAS FACILITIES

17.1. – Intent and Purpose.

A. **Intent and Purpose:** The Intent and purpose of this section is to establish and administer necessary and reasonable regulations for oil and gas drilling and production in a manner that protects and promotes the health, safety, and general welfare of the residents and environment of the County. To the extent practicable these regulations will require applications for oil and gas operations to demonstrate how adverse impacts will be mitigated to achieve a minimal negative impact on the environment, wildlife and residents of the County.

B. **Authority:** Pursuant to the authority granted to the County in C.R.S. 29-20-104(1) the review of such applications may include, without limitation:
   1. Land Use,
   2. Location and siting of oil and gas facilities,
   3. Impacts to public facilities and services,
   4. Water quality and source, noise, vibration, odor, light, dust, air emissions and air quality, land disturbance, reclamation procedures, cultural resources, emergency preparedness, and coordination with first responders, security and traffic and transportation impacts,
   5. Financial securities, indemnification and insurance as appropriate to ensure compliance with the requirements of Larimer County, and
   6. All other nuisance-type effects of oil and gas development.

C. **Applicability:** These regulations shall be applicable to all oil and gas drilling and production activity commenced on any property in Larimer County, after the date of ____________, regardless of what zoning district the property is situated in.

D. **Severability:** If any sections, 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 the section shall not be affected thereby and is hereby declared to be necessary for the public health, safety and welfare.

17.2. – Required Process and Permits

A. Required Process:
   a. Oil and gas drilling and production activities in Larimer County shall require Special Review approval (Section 4.5). Should we state when the approval must be obtained, i.e. prior to submittal to Colorado Oil and Gas Commission (COGCC)?

B. Supplemental Review Criteria for Oil and Gas Facilities:
   a. In addition to the Special Review criteria found in Section 4.5.3 of this Code, each oil and gas facility shall be approved only if it meets the following criteria:
      i. It complies all the requirements of this Section 17.
      ii. Reasonable and necessary mitigation steps have been taken to protect the public health, safety, and welfare and environment
C. Permits required:
   a. Access permits
   b. Building permits as required for structures
   c. Development Construction permit
   d. All federal, state and local permits for oil and gas operations

17.2.1 - Administrative Review Process

A. Applicant's Election to Use Administrative Review Process. As an alternative to processing an application using the Special Review process set out in Section 4.5 of the Larimer County Land Use Code (Code), an applicant may elect to use the expedited and enhanced administrative review process set out in this section. In electing to use this administrative review process, the applicant must acknowledge and agree in its application to all of the following:

1. That by using this administrative review process to obtain an expedited review, the applicant's application will not only be subject to the baseline standards in section 17.3, but also the enhanced standards outlined in Section 17.3.1, which enhanced standards might be interpreted to be in operational conflict in one or more respects with COGCC regulations;
2. That to the extent the enhanced or negotiated standards imposed through this administrative review process are not already included as conditions in the applicant's COGCC permit, the applicant will request the Commission to add such enhanced standards as additional conditions to the applicant's COGCC permit; and
3. That if for any reason the applicant wishes to revoke its election to use this administrative review process or to withdraw from the process once started, but still desires an oil and gas permit under this section, it will be required to follow and meet all of the requirements of the Special Review Development Review Procedures in Section 12.2 of the Code.

B. Application Completeness Review. An application reviewed under this section shall be reviewed by the Director for completeness using the same process used in the Special Review process.

C. Development Review Services Team (DRST). After an application is filed with current planning and determined by the Director to be a complete application, it shall be reviewed by the DRST. The DRST shall review the application for conformance with the applicable provisions of this chapter and any other applicable provisions of this code. As part of this review, the DRST may meet with the applicant or the applicant's representatives to discuss the application and to present the DRST's questions, concerns and recommendations. Within thirty (30) days after the application has been determined by the director to be a complete application, the DRST shall complete its review by submitting a written report of its findings and recommendations to the applicant and the director. The report shall also be posted on the County's website with the application, but excluding any information required under this chapter to be kept confidential. Within thirty (30) days of the issuance of the DRST's report, the applicant may supplement its application in response to the DRST report.

D. Neighborhood Meeting. The neighborhood meeting for an application reviewed under this section shall be scheduled, noticed and conducted or waived in the same manner as under the Special Review process set out in Section 12.2.4 of the Code, but with one addition: The notices mailed shall state that the application is being reviewed under the administrative review process and notify the recipients of the notice that they will have until fifteen (15) days after the neighborhood meeting is held or after such other date set by the Director if the neighborhood meeting is waived by the Director in which to submit to current planning for the Director's consideration any comments and information, in written, electronic or photographic form, related to the subject application.
E. Public Comment. Within fifteen (15) days after the neighborhood meeting is held or after such other date set by the Director if the neighborhood meeting is waived by the Director, any person may file with current planning for the Director's consideration and to be included in any record on appeal, any comments and information, in written, electronic or photographic form, relevant to the Director's consideration of the subject application under this section. Current planning shall preserve all of the comments and information received under this section to ensure that they are included in any record of appeal. These comments and information shall also be made available for review by the applicant. The applicant may supplement its application in response or rebuttal to the comments and information submitted by the public. The applicant must file this supplemental information with current planning within fifteen (15) days after the deadline for the public's submittal of its comments and information. Any comments and information received by current planning after the deadlines set forth herein, shall not be considered by the Director in his or her decision and shall not be included in the record of any appeal.

F. Director's Negotiations with Applicant. After receiving the DRST report and all of the public comments and information provided under this section, the Director shall negotiate with the applicant for standards to be added as conditions to the oil and gas permit in addition to or in substitution of those baseline standards required in Section 17.3 and the enhanced standards in section 17.3.1, if in the Director's judgment such conditions will result in the increased protection of the public's health, safety, welfare, and environment or further minimize adverse impacts to surrounding land uses, the environment or wildlife resources. The Director shall have ten (10) days after the last of the public comments and information have been submitted in which to conduct those negotiations. If after those negotiations the applicant agrees in writing to these new standards, they shall be added as conditions to the oil and gas permit if the permit is granted by the Director. The condition shall also be submitted by the applicant to the commission to be added as an express condition on the applicant's COGCC permit. If the applicant does not agree to these conditions, they shall not be added as conditions to any granted oil and gas permit. In addition, the applicant's refusal to agree to any such conditions shall not be used by the Director as a basis, in whole or part, to deny the applicant's requested oil and gas permit.

G. Director's Decision. Within fifteen (15) days after the expiration of the negotiation period, the Director shall issue his or her written findings and conclusion, granting, granting with conditions to the extent agreed by the applicant or denying the applicant's requested oil and gas permit. The record which the Director must consider in issuing his or her written findings and conclusions shall consist solely of the application, the applicant's supplementals to the application, the DRST report and the public comments and information submitted under this section. This record shall be used by the Director to then determine the application's compliance or noncompliance with the applicable provisions of this chapter and any other applicable provisions in this code.

H. Appeal of Director's Decision. The Director's decision as set out in his or her written findings and conclusions shall constitute the Director's final decision. The Director's final decision is not appealable to the Planning Commission, nor the Board of County Commissioners, nor the Board of Adjustment. The Director's final decision may only be appealed by the applicant or a "party in interest," to the District Court for Larimer County. The record to be considered in the appeal shall consist of the Director's written findings and conclusion, the application, the applicant's supplementals to the application, the DRST report, all comments and information provided by the public, and any other evidentiary information the District Court orders to be included in the record.
A. General:
   1. All applicants are responsible for compliance with applicable federal, state and local laws and regulations for the operation of Oil & Gas facilities.
   2. Oil and Gas facilities should be located to minimize impacts on agricultural operations.

B. Air Quality:
   1. The use shall comply with existing federal and state laws and regulations applicable to its operations and emission sources as well as any future laws and regulations adopted by the Colorado Air Quality Control Commission (AQCC).
   2. Air contaminant emission sources shall apply for and comply with the permit and control provisions prescribed by the Colorado APCD C.R.S. tit.25, Art. 7 (C.R.S. § 25- 7-101 et seq.) and the rules and regulations promulgated by the AQCC all applicable emission sources.
   3. Environmental Protection Agency (EPA) Reduced Emission Completions shall be used for all completions and well workovers following hydraulic fracturing, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system.
   4. Closed loop, pitless drilling, completion systems without permanent on-site storage tanks must be utilized for containment and/or recycling/reuse of all drilling, completion, and flowback fluids, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system. All emissions shall be routed to and controlled by a flare or combustor operated with at least 98% destruction removal efficiency.
   5. Oil and Gas facilities shall be equipped with electric-powered engines for motors, compressors, drilling and production equipment, and pumping systems, unless it is demonstrated by the application materials the utilization of such equipment is not economically feasible or practical.
   6. During construction and exploration, the applicant shall demonstrate that the site, including traffic and construction equipment, complies with all AQCC standards.
   7. Oil and gas operators shall respond to air quality action day advisories posted by the CDPHE for the front range area by implementing air reduction measures, which could include:
      a. Minimizing vehicle traffic and engine idling;
      b. Reduced truck and worker traffic;
      c. Delay vehicle refueling;
      d. Suspend or delay use of fossil fuel powered ancillary equipment;
      e. Postpone construction or maintenance activities; and
      f. Postpone liquid unloading activities that would result in emission to the atmosphere.

C. Leak Detection and Repair:
   1. Oil and gas facilities shall at a minimum conduct semi-annual leak detection and repair (LDAR) inspections using modern leak detection technologies and equipment. One of the Semi-annual LDAR inspections shall include a five-day notice to the County Local Government Designee (LGD) and County Health Department inviting them to observe, at their discretion, the inspection.
   2. Verified leaks to an oil and gas facility shall be reported to the County LGD and County Health Department within 24 hours of the discovered leak.
3. All verified leaks shall be repaired within 72 hours, unless technically or operationally infeasible. If a leak is not repaired within 72 hours, the oil and gas facility shall be shut-in until the leak is repaired.

4. **D. Spills and Releases:**
   1. Any state reportable spill or release at an oil and gas facility, including those reportable to the COGCC, shall be immediately reported, no later than 24 hours after the event, to the following local emergency response authorities in Larimer County:
      a. Larimer County Sheriff
      b. Larimer County Department of Health and Environment
      c. Larimer County Local emergency Planning Committee
      d. Larimer County Oil and Gas LGD
      e. Local Municipal Police Department if within one mile of a city or town
      f. Local Fire Department
   2. All state reportable spills or releases shall be cleaned up to the satisfaction of state and local agencies. Remediation of spills or releases reportable to the COGCC may be deferred to the COGCC and CDPHE.

E. **Well Liquids Unloading:**
   1. Best management practices, including artificial lift, automated plunger lifts and at least 90% emissions when utilizing combustion to control venting shall be employed at all facilities.
   2. Required manual unloading shall require on-site supervision of the uploading process.

F. **Noise:**
   1. A three-day (one day being a weekend day) baseline noise analysis from all receptors within 350 feet of the proposed use, or the property line, whichever is closest to the proposed oil and gas facility, shall be provided.
   2. Predicted decibel levels shall be provided for various phases of development, as measured 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning of other local land use designation.
   3. Proposed mitigation measures demonstrating that the oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County:
   4. Decibel levels shall meet the identified level for the appropriate activity and adjacent land use. Decibels shall be measured at 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning or other local land use designation.
   5. Oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County:

<table>
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<tr>
<th>ZONE</th>
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<th>7:00 pm to next 7:00 am</th>
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<td>Residential/Agricultural/Rural</td>
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<tr>
<td>Light Industrial</td>
<td>70 db(A)</td>
<td>65 db(A)</td>
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<tr>
<td>Industrial</td>
<td>80 db(A)</td>
<td>75 db(A)</td>
</tr>
</tbody>
</table>

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 db(A) for a period of not to exceed fifteen minutes in any one-hour period.

Construction projects (pipeline or facility construction/installation) shall be subject to the maximum permissible noise levels specified for industrial zones for the period within which construction is to be completed pursuant to any applicable construction permit issued by proper authority or, if no time limitation is imposed, for a reasonable period of time for completion of project.

G. Odors:

1. Oil and gas operations shall be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII.
2. Operator shall submit a odor mitigation plan that includes a process for response to odor complaints.
3. We encourage the Operator to communicate the schedule/timing of well completions activities to residents.

H. Dust:

1. Best management practices for the mitigation of dust associated with on-site and traffic activities shall be employed at the facility.
2. Produced water and other process fluids shall not be used for dust suppression.
3. Safety Data Sheets (SDS) shall be provided with the application for any proposed chemical based dust suppressants.
4. Water only, unless otherwise approved by the County Health and Engineering Department, will be used for dust suppression activities within 300 feet of the ordinary high-water mark of any body of water.

I. Access:

1. 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:
   a. The first 50 feet of access drive from the edge of pavement of the adjacent road will be paved and the remaining portions of the access drive shall be composed of a minimum of 6 inches of compacted Class 5 road base.
   b. The access drive entrance shall include returns with a 30-foot radius.
   c. The access drive shall be treated with Magnesium Chloride during the entire construction phase, and any time thereafter when the level of use exceeds 200 vehicle trips per day.
   d. A mud and debris tracking pad shall be located at the end of the paved portion of the access drive.

J. Chemical Handling:
1. Prior to any hydraulic fracturing activity, the operator shall provide the County with a copy on the chemical disclosure registry form provided to the COGCC pursuant to the COGCC’s “Hydraulic Fracturing Chemical Disclosure”.
2. Drilling and completion chemicals shall be removed from the site within sixty days of the drilling completion.

K. Recycle, Reuse and Disposal of Fluids:
   1. Drilling, completion flowback and produced fluids shall be recycled/reused, unless technically infeasible.
   2. Exploration and production waste may be temporarily stored, not to exceed two weeks, in tanks while awaiting transport to licensed disposal or recycling sites.
   3. Produced water shall be transported by pipeline unless economically or technically infeasible.

L. Water Bodies:
   1. The applicant shall provide documentation to the County, as required by the COGCC, demonstrating how the COGCC water quality protection standards are being complied with.
   2. The Larimer County Health Department shall be provided with all water source tests that are typically submitted to the COGCC or CDPHE if approved by the water well owner.
   3. Proposed oil and gas operations proposed in a floodplain shall require review and approval of the Floodplain Permit prior to the Board of County Commissioners hearing for an oil and gas special review application.
   4. Produced water disposal via wastewater injection wells shall not be allowed.

M. Visual:
   1. The application shall demonstrate compliance with the visual and aesthetic rules of COGCC and the Larimer County regulations for landscaping, fencing and lighting for all phases of the development of the site and in accordance with the development requirements for the zone development is proposed in.
   2. All oil and gas facilities shall be painted with colors that are matched to or slightly darker than the surrounding landscape, and shall utilized paint with uniform, noncontracting, nonreflective color tones based upon the Munsell Soil Color Coding System.
   3. The location of all outdoor lighting shall be designed to minimize off-site light spillage and glare.
   4. Fencing shall for all the phases of an Oil and Gas facility development to ensure the security and visual aesthetics of the use.
   5. Landscaping for screening and visual quality from off-site shall be required within 6 months from the time of well completion.
   6. Oil and Gas facility applications, including access roads serving the facility, shall demonstrate how compliance with weed control requirements of the County Weed District and Forestry Services Department will be met.

N. Well Plugging and Abandonment:
   1. Well abandonment and reclamation shall comply with the COGCC rules and shall include the following:
a. Removal of all equipment from the well site,
b. Restoration of the site surface to the conditions of the site reclamation plan,
c. Notice to the County LGD of the commencement and completion of such activity, and
d. Coordinates for the location of the decommissioned well(s), and any associated flow lines, shall be provided with the notice of the completion of well abandonment.

O. **Flammable Material:**
   1. The location of flammable materials on site shall conform to all COGCC safety standards and local fire codes.
   2. A minimum 25-foot buffer, free of weeds and dried grasses, shall be required around anything flammable.

P. **Waste Disposal:**
   1. Oil and gas facilities shall remain free of debris and excess materials during all phases of operation.
   2. Burning of debris, trash or other flammable material is not allowed.

Q. **Removal of Equipment:**
   1. There shall be no permanent storage of equipment on the site of an oil and gas facility.
   2. When not in use, or no longer needed for on-site operations all equipment not being used on the site shall be removed.

R. **Maintenance of Machinery:**
   1. There shall be no maintenance of field equipment involving hazardous material within 300 feet of a water body.
   2. Any fueling on-site shall occur over an impervious surface and shall not occur during storm events.

S. **Flow Lines, Transfer Lines and Gathering Lines:**
   1. 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.
   2. The location of pipelines shall be evaluated on a case by case basis, with determine locational factor being the size and type of pipeline being proposed.
   3. Coordinates of all flow lines shall be provided.

T. **Temporary Water Lines:**
   1. Temporary waterlines shall be used, unless technically infeasible.
   2. Temporary waterlines shall be buried at all existing driveway and road crossing, or utilize existing culverts, if available.

U. **Financial Assurance:**
1. The Applicant must demonstrate the financial capability to reclaim all disturbed areas during each phase of the site development and following termination of the oil and gas operation on the site.

2. The Applicant must, for the life of the use, carry environmental liability insurance for all potential pollution events.

17.3.1 - Enhanced Standards for Administrative Review Process.

A. All applications considered in the administrative review process and all oil and gas operations approved under this process shall be subject to and comply with the following guidelines as applicable, in addition to the standards and requirements in code Section 17.3.

B. The operator shall designate these standards and requirements, to the extent applicable, as agreed upon best management practices on any application the operator files with the Commission.

17.4 - Guidelines for Oil and Gas Developments

A. Applications for oil and gas facilities are strongly encouraged to incorporate the following guidelines (best management practices). Where reasonably necessary, the County may require some or all of the following guidelines depending on the location and characteristics of the proposed facility.

1. To mitigate the adverse impacts of air emissions generated by oil and gas facilities, Applicants are encouraged to:
   a. use tankless production techniques,
   b. use zero emission dehydrators,
   c. use pressure-suitable separator and vapor recovery units,
   d. use no-bleed continuous and intermittent pneumatic devices, or alternatives such as replacing natural gas with electric or instrument air, or by routing discharged emissions to closed loop-systems of processes,
   e. use automated tank gauging, and
   f. eliminate all flaring except during emergencies or upset conditions, which shall be reported to the County (see std ___).

2. To mitigate the adverse impacts of odor generated by oil and gas facilities, Applicants are encouraged to:
   a. Add odorants that are not a masking agent, to adding chillers to the mud systems,
   b. Using filtration systems or additives to minimize odors from drilling and fracturing fluids except that the Applicant shall not mask odors by using masking fragrances,
   c. Enclose shale shaker to contain fumes from exposed mud where safe and feasible,
   d. Wipe down drill pipe each time drilling operation “trips” out of hole,
   e. Increasing additive concentration during peak hours provided additive does not create a separate odor. Additive must be used per manufacturer’s recommended level,
   f. Use minimum low odor Category III drilling fluid. This could include non-diesel-based drilling muds including drilling muds that are low odor and do not contain benzene, toluene, ethylbenzene or xylene (BTEX),
g. Apply 'green frac' methods, utilizing only sand and water as fracking materials or other 'green frac' materials agreed upon between the community and industry, and

h. The Applicant is encouraged to communicate the schedule/timing of well completions activities to residents, which could allow for voluntary shutting of windows and air intakes or temporary relocation.

3. To mitigate the impacts of multiple pipeline corridors, Applicants are encouraged to consolidate and share pipeline easements and corridors, unless it is technically infeasible or creates unsafe operating conditions.

17.5. - Application Requirements

A. In addition to the submittal requirements necessary to demonstrate compliance with the applicable Sections of the Land Use Code, applications for oil and gas facilities shall also include, when relevant, the following:
   a. A Site Inventory Map.
   d. A Noise Mitigation Plan.
   f. An Odor Mitigation Plan.
   g. A Hazardous Material Plan.
   h. A Dust Mitigation Plan.
   i. A Site Security Plan.
   j. A Production Water Supply Plan.
   k. A Containment and Spill Plan.
   m. A Reclamation Plan.
   n. A Surface Use Agreement.
   o. A statement verifying the legal right to extract the mineral resources.

17.6. - Appeals

A. Any decision made pursuant to this section may be appealed pursuant to Section 22 of the Larimer County Code.

17.7. - Enforcement and Inspection

A. Applicants shall demonstrate compliance with the Larimer County Land Use Code, and with this Section. Failure to maintain compliance with the County approval of an oil and gas facility may result in the revocation of the approval pursuant to the procedures in Section 12 of the Land Use Code. The County retains the right to seek whatever remedy or redress is legally allowable.

B. The County reserves the right to inspect the property for compliance.

17.8. - Fees and Security for Reclamation

A. The following fees are applicable to oil and gas facilities.
   a. TBD

B. An impact fee will be assessed as follows:
   a. Capital Transportation Impact Fees
C. Each application shall include financial security for the purpose of ensuring maintenance and reclamation may be accomplished if the applicant is unable or unwilling to perform its obligations.

17.9. - Termination of Use or Modification.
   A. No modification to an approved oil and gas facility shall be made without obtaining appropriate land use approval from the county.
   B. Upon termination of use, the oil and gas facility must be reclaimed pursuant to the reclamation plan provided.

17.10. - Definitions.
   A. Unless otherwise listed herein, the definitions found within the Colorado Revised Statutes and COGCC regulations shall control.
Colorado Park and Wildlife Department of Natural Resources
December 5, 2019

Lesli Ellis
Larimer County
Community Development Director
200 W. Oak Street
Fort Collins, CO 80521

RE: Larimer County SB-181 Draft Oil and Gas Rules

Dear Ms. Ellis:

Thank you for the opportunity to comment on the Larimer County SB-181 Draft Oil and Gas Rules planning process. The mission of Colorado Parks and Wildlife (CPW) is to perpetuate the wildlife resources of the state, to provide a quality state parks system, and to provide enjoyable and sustainable outdoor recreation opportunities that educate and inspire current and future generations to serve as active stewards of Colorado’s natural resources. Our goal in responding to land use proposals such as this is to provide complete, consistent, and timely information to all entities who request comment on matters within our statutory authority.

Area Wildlife Managers Ty Petersburg (Area 4 Fort Collins) and Kristin Cannon (Area 2 Loveland) recently reviewed the Larimer County SB-181 O&G Rules Draft document. Larimer County is included within Area 2 south of HWY 392 and Trilby Road while Area 4 consists of Larimer County north of Hwy 392 and Trilby Road. Refer to CPW Area Boundaries Map.

CPW appreciates the efforts made by Larimer County to create a thorough plan regarding resource development and is eager to work with Larimer County early in the draft planning process. CPW representatives would appreciate the opportunity to provide site specific recommendations for any new oil and gas developments including access easements through sensitive wildlife habitats and corridors, as well as any proposals for expansion, plough and abandonment and additions/improvements to existing developments. Recommendations would assess wildlife needs and operational constraints, as well as collaborate on a planning document that provides guidelines to avoid or minimize impacts to wildlife resources.

CPW is currently updating best management practices or “Actions to Minimize Adverse Impacts to Wildlife Resources,” which can be made available to Larimer County upon completion. These recommendations may be incorporated into county guidelines as appropriate. At a minimum, CPW would like to address the following specific concerns related to oil and gas development.
Habitat loss and fragmentation from development (both site-specific and cumulative)
The main impacts to wildlife from oil and gas development include fragmentation and loss of
habitat. Although it is impossible to eliminate fragmentation and habitat loss with any
development, impacts to wildlife can be minimized through clustering configurations, density
reduction, and providing open space for wildlife.

Fragmentation of wildlife habitat has been shown to impede the movement of wildlife across
the landscape. Thus, Colorado Parks and Wildlife (CPW) recommends that Larimer County
employ a collaborative approach with cities and towns, and with other developments within
the county. Effort should be made to maintain wildlife habitat in as whole a state as possible
by restricting development within open space areas and migration corridors and clustering oil
and gas developments within already disturbed areas (i.e. industrial, residential,
commercial). The implementation of appropriate density thresholds on development as well
as maximizing the utility of surface facilities by directional drilling and co-locating
multipurpose functions can avoid unnecessary habitat fragmentation and disturbance of
additional geographic areas.

Loss of Wildlife Movement/Migration Corridors

Riparian corridors provide some of the most species-diverse wildlife habitat found below
6,000 feet of elevation in Colorado. These corridors provide benefit to wildlife in a number
of ways, including connecting protected areas and providing a place for wildlife to migrate
from one place to another with minimal disturbance and conflicts from people. Disturbance
of wildlife corridors through development causes fragmentation.

CPW recommends >200-ft buffer along riparian areas to maintain wildlife movement
corridors. This will help CPW be in line with SO3326 and EO 2019-011. Visual and audio
buffers should be either maintained with existing vegetation or enhanced with native plants
to protect the viability of riparian habitat. Any re-vegetation planned for the riparian area
should allow for regeneration of shrubby undergrowth.

Roads and Fencing

The presence of roads and fences can greatly impact wildlife movement across a
landscape. This impact can be reduced by minimizing the number, length and footprint of
oil and gas development roads and using existing routes where possible. Avoidance or
mitigation of migration corridor disturbance when considering the location and construction
of roads, fences and other linear structures reduces vehicle/wildlife collisions and
wildlife/fencing entanglements. CPW supports development and implementation of portable
wildlife-proof fencing that could be used temporarily to protect vegetation during early
stages of development. The consideration of Wildlife Friendly Fencing standards for long
term fencing is recommended. CPW has produced a document titled “Fencing with Wildlife
in Mind” that can be provided upon request or can be found at www.cpw.state.co.us.

Increased Human Presence
The effort to reduce disturbance on the actual drill site and the surrounding area, to reduce direct conflict with wildlife and to prevent wildlife access to equipment should be attempted. This can be achieved by scheduling construction, drilling, completion and monitoring activities to avoid particularly sensitive seasonal and diurnal wildlife uses. A reduction of visits to well-sites through remote monitoring and the use of multi-function contractors as well as utilization of centralized pipelines can also greatly reduce the impact of human movement and disturbance to sensitive wildlife.

**Water Contamination**

CPW requests that surface discharge produced water meets minimum standards for Total Dissolved Solids (TDS) and Sodium Adsorption Ration (SAR) to benefit wildlife. In addition CPW requests Larimer County avoid locating staging, refueling and storage areas within 300 feet of any reservoir, lake, wetland or natural perennial or seasonally flowing stream or river.

**Noise Contamination**

Reduce noise by using effective sound dampening devices or techniques. Appropriate noise levels can be found in the species specified recommendations included in the attached document.

**Visual Effect**

Locate above-ground facilities to minimize the visual effect (e.g. low profile equipment. Appropriate paint color, vegetation screening in wooded areas etc.)

**Noxious Weeds**

Invasive plants endanger the ecosystem by disturbing natural processes and jeopardizing the survival of native plants and the wildlife that depend on them. CPW recommends implementation of an integrated weed management plan if Larimer County does not already have one in place.

**Species Specific Recommendations**

CPW would expect a variety of wildlife species to utilize potential oil and gas sites on a regular basis including small to mid-sized mammals, songbirds, and raptors. The potential also exists for large mammals, such as deer and elk, reptiles and amphibians to frequent these sites.

Raptors are protected from take, harassment, and nest disruption at both the state and federal levels. If nests are observed within the development area, CPW recommends that buffer zones around nest sites be implemented during any period of activity that may interfere with nesting season. This will prevent the intentional or unintentional destruction of an active nest. CPW recommends work stay outside of year-round Restricted Surface Occupancy (RSOs) and seasonal Sensitive Wildlife Habitats (SWHs) - please refer to our attached Raptor Buffer Guidelines and to COGCC’s map at
Please note COGCC’s wildlife layer hasn’t been updated since 2013. CPW is working to update that with COGCC. In the meantime, if you want to make sure your GIS wildlife layers are current (2019) and that you’re looking at the same layers CPW is utilizing, email robert.sacco@state.co.us for access to the most up-to-date maps. Your local District Wildlife Manager may be able to facilitate a long term non-disclosure statement for specified county personnel in order to facilitate the flow of current information.

Thank you again for the opportunity to comment on the Larimer County SB-181 Draft Oil and Gas planning process. Please do not hesitate to contact Area Wildlife Managers Kristin Cannon at kristin.cannon@state.co.us or 970-472-4461; or Ty Petersburg at ty.petersburg@state.co.us or 970-472-4315 for updated recommendations or additional information.

Sincerely,

Ty Petersburg
Area Wildlife Manager
Area 4 Fort Collins

Colorado Petroleum Council (CPC)
Note: This will be a new Section in the Larimer County Land Use Code. This is a preliminary outline of draft oil and gas regulations and is not all inclusive.

To keep the Task Force Committee discussion on track, please focus comments to the intent and purpose of the standards and avoid refrain from making small edits.

17.0. – OIL AND GAS FACILITIES

17.1. – Intent and Purpose.

A. **Intent and Purpose:** The Intent and purpose of this section is to establish and administer necessary and reasonable regulations for oil and gas drilling and production in a manner that protects and promotes the health, safety, and general welfare of the residents and environment of the County. To the extent practicable these regulations will require applications for oil and gas operations to demonstrate how adverse impacts will be mitigated to achieve a minimal negative impact on the environment, wildlife and residents of the County.

B. **Authority:** Pursuant to the authority granted to the County in C.R.S. 29-20-104(1) the review of such applications may include, without limitation:
   1. Land Use,
   2. Location and siting of oil and gas facilities,
   3. Impacts to public facilities and services,
   4. Water quality and source, noise, vibration, odor, light, dust, air emissions and air quality, land disturbance, reclamation procedures, cultural resources, emergency preparedness, and coordination with first responders, security and traffic and transportation impacts,
   5. Financial securities, indemnification and insurance as appropriate to ensure compliance with the requirements of Larimer County, and
   6. All other nuisance-type effects of oil and gas development.

C. **Applicability:** These regulations shall be applicable to all new or future oil and gas drilling and production activity commenced on any property in Larimer County, after the date of ______________, regardless of what zoning district the property is situated in.

D. **Severability:** If any sections, 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 the section shall not be affected thereby and is hereby declared to be necessary for the public health, safety and welfare.

17.2. – Required Process and Permits

A. **Required Process:**
   a. Oil and gas drilling and production activities in Larimer County shall require Special Review approval (Section 4.5).

B. **Supplemental Review Criteria for Oil and Gas Facilities:**
   a. In addition to the Special Review criteria found in Section 4.5.3 of this Code, each oil and gas facility shall be approved only if it meets the following criteria:
      i. It complies all the requirements of this Section 17.
      ii. Reasonable and necessary mitigation steps have been taken to protect the public health, safety, and welfare and environment.
C. Permits required:
   a. Access permits
   b. Building permits as required for structures
   c. Development Construction permit
   d. All federal, state and local permits for oil and gas operations

17.3. Standards Required for all Oil and Gas Facilities

A. General:
   1. All applicants are responsible for compliance with applicable federal, state and local laws and regulations for the operation of Oil & Gas facilities.
   2. Oil and Gas facilities should be located to minimize impacts on agricultural operations.

B. Air Quality:
   1. The use shall comply with existing federal and state laws and regulations applicable to its operations and emission sources as well as any future laws and regulations adopted by the Colorado Air Quality Control Commission (AQCC).
   2. Air contaminant emission sources shall apply for and comply with the permit and control provisions prescribed by the Colorado APCD C.R.S. tit 25, Art. 7 (C.R.S. § 25-7-101 et seq.) and the rules and regulations promulgated by the AQCC all applicable emission sources.
   3. Environmental Protection Agency (EPA) Reduced Emission Completions shall be used for all completions and well workovers following hydraulic fracturing, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system.
   4. Closed loop, pitless drilling, completion systems without permanent on-site storage tanks must be utilized for containment and/or recycling of all drilling, completion, and flowback fluids, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system. All emissions shall be routed to and controlled by a flare or combustor operated with at least 98% destruction removal efficiency.
   5. Oil and Gas facilities shall be equipped with electric-powered engines for motors, compressors, drilling and production equipment, and pumping systems, unless it is demonstrated by the application materials the utilization of such equipment is not economically feasible or practical.
   6. During construction and exploration, the applicant shall demonstrate that the site, including traffic and construction equipment, complies with all AQCC standards.
   7. Oil and gas operators shall respond to air quality action day advisories posted by the CDPHE for the front range area by implementing air reduction measures, which should include:
      a. Minimizing vehicle traffic and engine idling;
      b. Reduced truck and worker traffic;
      c. Delay vehicle refueling;
      d. Suspend or delay use of fossil fuel powered ancillary equipment;
      e. Postpone construction or maintenance activities; and
      f. Postpone maintenance and liquid unloading activities that would result in emission to the atmosphere.

C. Leak Detection and Repair:
1. Oil and gas facilities shall at a minimum conduct semi-annual leak detection and repair (LDAR) inspections using modern leak detection technologies and equipment. One of the Semi-annual LDAR inspections shall include a five-day notice to the County Local Government Designee (LGD) and County Health Department inviting them to observe, at their discretion, the inspection.

2. Verified leaks to an oil and gas facility shall be reported to the County LGD and County Health Department within 24 hours of the discovered leak.

3. All verified leaks shall be repaired within 72 hours, unless technically or operationally infeasible. If a leak is not repaired within 72 hours, the oil and gas facility shall be shut-in until the leak is repaired.

| Commented [LMK21]: Not sure what this means? |
| Commented [LS15R14]: I agree with Frank...not sure construction and traffic flows should be under AQCC? We should be requiring particulate emission (dust) control, and all kinds of odor control to relate with the CDPHE health study of the early stages of development in order to get a producing well. |
| Commented [LS16R14]: AQCC will be reviewing rulemaking in Dec to require O&G have all air permits in place prior to construction and development. |
| Commented [LMK17]: I wonder if there is a way to say LDAR or better technology so if something else becomes better we do not have to change this section? |
| Commented [LS19R18]: Could be 1a. |
| Commented [LMK22]: 1a? |
| Commented [CNJ23]: This is suggested language to acknowledge the concurrent requirements that exist with COGCC and CDPHE for remediation and cleanup. This is to limit conflicts. |
| Commented [CNJ24]: This is a rule that must be followed. Also, who will supervise this process |
| Commented [CNJ25]: Measured outside of the sound walls |

| Commented [LMK26]: | |
| Commented [LS20R18]: I think this is fine, a little more than the state. |
| Commented [FNH18]: What if they fail to do the inspection? |
| Commented [LMK17]: I wonder if there is a way to say LDAR or better technology so if something else becomes better we do not have to change this section? |

E.D. Spills and Releases:

1. Any state reportable spill or release at an oil and gas facility, including those reportable to the COGCC, shall be immediately reported, no later than 24 hours after the event, to the following local emergency response authorities in Larimer County:
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2. All state reportable spills or releases shall be cleaned up to the satisfaction of state and the local emergency response authorities, listed in item 1 above agencies. Remediation of spills or releases reportable to the COGCC may be deferred to the COGCC and CDPHE.

F.E. Well Liquids Unloading:

1. Best management practices, including artificial lift, automated plunger lifts and at least 90% emissions when utilizing combustion to control venting shall be employed at all facilities.

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1. A three-day (one day being a weekend day) baseline noise analysis from all receptors within 350 feet of the proposed use, or the property line, whichever is closest to the proposed oil and gas facility, shall be provided.

2. Predicted decibel levels shall be provided for various phases of development, as measured 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning of other local land use designation.

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<td>65 db(A)</td>
</tr>
<tr>
<td>Industrial</td>
<td>80 db(A)</td>
<td>75 db(A)</td>
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</tbody>
</table>

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 db(A) for a period of not to exceed fifteen minutes in any one-hour period.

Construction projects (pipeline or facility construction/installation) shall be subject to the maximum permissible noise levels specified for industrial zones for the period within which construction is to be completed pursuant to any applicable construction permit issued by proper authority or, if no time limitation is imposed, for a reasonable period of time for completion of project.

H.G. Odors:

1. Oil and gas operations shall be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII.

2. Operations shall prevent odors from oil and gas facilities from affecting the health and welfare of the public during development activities including drilling, fracking, and flowback to the extent reasonably possible.

3. A system shall be established for immediate response to odor complaints that includes options for ceasing operations, notification of affected residents, and temporary relocation of residents until the source of the odor is identified and resolved. Operator shall submit an odor mitigation plan that includes a process for response to odor complaints.

4. We encourage the Operator to communicate the schedule/timing of well completions activities to residents, which could allow for voluntary shutting of windows and air intakes or temporary relocation.

I.H. Dust:

1. Best management practices for the mitigation of dust associated with on-site and traffic activities shall be employed at the facility.

2. Produced water and other process fluids shall not be used for dust suppression.

3. Safety Data Sheets (SDS) shall be provided with the application for any proposed chemical based dust suppressants.
4. Water only, unless otherwise approved by the County Health and Engineering Department, will be used for dust suppression activities within 300 feet of the ordinary high-water mark of any body of water.

J.J. Access:
1. 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:
   a. The first 50 feet of access drive from the edge of pavement of the adjacent road will be paved and the remaining portions of the access drive shall be composed of a minimum of 6 inches of compacted Class 5 road base.
   b. The access drive entrance shall include returns with a 30-foot radius.
   c. The access drive shall be treated with Magnesium Chloride during the entire construction phase, and any time there after when the level of use exceeds 200 vehicle trips per day.
   d. A mud and debris tracking pad shall be located at the end of the paved portion of the access drive.

K.J. Chemical Handling:
1. Prior to any hydraulic fracturing activity, the operator shall provide the County with a copy on the chemical disclosure registry form provided to the COGCC pursuant to the COGCC’s “Hydraulic Fracturing Chemical Disclosure”.
2. Drilling and completion chemicals shall be removed from the site within sixty days of the drilling completion.
   a. The following toxic, including orally toxic chemicals shall not be added or utilized in the hydraulic fracturing fluid:
      b. Benzene
      c. Lead
      d. Mercury
      e. Arsenic
      f. Cadmium
      g. Chromium
      h. Ethylbenzene
      i. Xylene
      j. 1,3,5-trimethylbenzene
      k. 1,4-dioxane
      l. 1-butanol
      m. 2-butoxyethanol
      n. N,N-dimethylformamide
      o. 2-ethylhexanol
      p. 2-mercaptoethanol
      q. Benzene, 1, 1'-oxybis- tetrapropylene derivatives, sulfonated, sodium salts
      r. Butyl glycidyl ether
      s. Polysorbate 80
      t. Quaternary ammonium compounds, dioctyl dimethyl, chlorides
      u. Bis hexamethylene triamine penta methylene phosphonic acid
      v. Diethylenetriamine penta
      w. FD&C blue no. 1.

Commented [LMK31]: Potable?
Commented [LMK32]: Seems to be missing something
Commented [LKE33]: Caps?
Commented [FNH34]: Should we include some language about making sure that fire apparatus can get in, or complying with the standards of the local fire district?
Commented [LMK35]: Would thirty be better?
Commented [LKE36]: Is this a defined term? Sounds odd

Commented [CJM37]: We would suggest this is a downhole regulation not granted to the county under SB19-181.
L.K. **Recycle, Reuse and Disposal of Fluids:**

1. Drilling, completion flowback and produced fluids shall be recycled, unless technically infeasible.
2. Exploration and production waste may be temporarily stored, **not to exceed two weeks**, in tanks while awaiting transport to licensed disposal or recycling sites.
3. Produced water shall be transported by pipeline unless economically or technically infeasible.

M.L. **Water Bodies:**

1. The applicant shall provide documentation to the County documentation, as required by the COGCC, demonstrating how the COGCC water quality protection standards are being complied with.
2. The Larimer County Health Department shall be provided with all water source tests, that are typically submitted to the COGCC or CDPHE if approved by owner.
3. Proposed oil and gas operations proposed with in a flood plain shall require review and approval of the Floodplain Permit prior to the Board of County Commissioners hearing for an oil and gas special review application.
4. **Produced water disposal via wastewater injection wells shall not be allowed.**

N.M. **Visual:**

1. The application shall demonstrate compliance with the visual and aesthetic rules of COGCC and the Larimer County regulations for landscaping, fencing and lighting for all phase of the development of the site and in accordance with the development requirements for the zone development is proposed in.
2. All oil and gas facilities shall be painted with colors that are matched to or slightly darker than the surrounding landscape, and shall utilized paint with uniform, noncontracting, nonreflective color tones based upon the Munsell Soil Color Coding System.
3. The location of all outdoor lighting shall be designed to minimize off-site light spillage and glare.
4. Fencing shall for all the phases of an Oil and Gas facility development to ensure the security and visual aesthetics of the use.
5. Landscaping for screening and visual quality from off-site shall be required within 6 months from the time of well completion.
6. O&G Oil and Gas facility applications, including access roads serving the facility, shall demonstrate how compliance with weed control requirements of the County Weed District and Forestry Services Department will be met.

O.N. **Well Plugging and Abandonment:**

1. Well abandonment and reclamation shall comply with the COGCC rules, and shall include the following:
   a. Removal of all equipment from the well site,
   b. Restoration of the site surface to the conditions of the site reclamation plan,
   c. Notice to the County LGD of the commencement and completion of such activity, and
d. 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.

P.O. Flammable Material:
1. The location of flammable materials on site shall conform to all COGCC safety standards and local fire codes.
2. A minimum 25-foot buffer, free of weeds and dried grasses, shall be required around anything flammable.

Q.P. Waste Disposal:
1. Oil and gas facilities shall remain free of debris and excess materials during all phases of operation.
2. Burning of debris, trash or other flammable material is not allowed.

R.Q. Removal of Equipment:
1. There shall be no permanent storage of equipment on the site of an oil and gas facility.
2. When not in use, or no longer needed for on-site operations, all equipment not being used on the site shall be removed.

S.R. Maintenance of Machinery:
1. There shall be no maintenance of field equipment involving hazardous material within 300 feet of a water body.
2. Any fueling on-site shall occur over an impervious surface and shall not occur during storm events.

T.S. Flow Lines, Transfer Lines and Gathering Lines:
1. All off-site lines transporting process materials, production wastes, product and any other items used of 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.
2. The location of pipelines shall be evaluated on a case-by-case basis, with determinate locational factor being the size and type of pipeline being proposed.
3. Coordinates of all flow lines, gathering lines, and transfer lines shall be provided.

U.T. Temporary Water Lines:
1. Temporary waterlines shall be used, unless technically infeasible.
2. Temporary waterlines shall be buried at all existing driveway and road crossing, or utilize existing culverts, if available.

X.U. Financial Assurance:
1. The operator/Applicant must demonstrate the financial capability to reclaim all disturbed areas during each phase of the site development and following termination of the oil and gas operation on the site.
2. The operator/Applicant must, for the life of the use, carry environmental liability insurance for all potential pollution events.

Commented [CJM45]: Gathering lines are typically owned by a third-party entity, not an operator. Thus if an operator is conducting a plug and abandonment, they cannot accept liability for another entity’s lines.

Commented [LMK46]: Any inspection requirements after closure?

Commented [CJM47]: Again, these are typically not operator owned, and thus they will likely not have this information.

Commented [FNH48]: Who is going to check this, or decide how much, or that it is still there when we need it?

Commented [CJM49]: Operators already post bonds. How would this section be implemented in practice?
17.4. - Guidelines for Oil and Gas Developments

A. Applications for oil and gas facilities are strongly encouraged to incorporate the following guidelines (best management practices). Where reasonably necessary, the County may require some or all of the following guidelines depending on the location and characteristics of the proposed facility.

1. To mitigate the adverse impacts of air emissions generated by oil and gas facilities, operator Applicants are encouraged to:
   a. use tankless production techniques,
   b. use zero emission dehydrators,
   c. use pressure-suitable separator and vapor recovery units,
   d. use no-bleed continuous and intermittent pneumatic devices, or alternatives such as replacing natural gas with electric or instrument air, or by routing discharged emissions to closed loop-systems of processes,
   e. use automated tank gauging, and
   f. eliminate all flaring except during emergencies or upset conditions, which shall be reported to the County (see std __).

2. To mitigate the adverse impacts of odor generated by oil and gas facilities, operator Applicants are encouraged to:
   a. Add odorants that are not a masking agent, to adding chillers to the mud systems,
   b. Using filtration systems or additives to minimize odors from drilling and fracturing fluids except that the operator Applicant shall not mask odors by using masking fragrances,
   c. Enclose shale shaker to contain fumes from exposed mud where safe and feasible,
   d. Wipe down drill pipe each time drilling operation “trips” out of hole,
   e. Increasing additive concentration during peak hours provided additive does not create a separate odor. Additive must be used per manufacturer’s recommended level,
   f. Use minimum low odor Category III drilling fluid. This could include non-diesel based drilling muds including drilling muds that are low odor and do not contain benzene, toluene, ethylbenzene or xylene (BTEX),
   g. Apply ‘green frac’ methods, utilizing only sand and water as fracking materials or other ‘green frac’ materials agreed upon between the community and industry,
   h. The Operator Applicant is encouraged to communicate the schedule/timing of well completions activities to residents, which could allow for voluntary shutting of windows and air intakes or temporary relocation.

3. To mitigate the impacts of multiple pipeline corridors, operator Applicants are encouraged to consolidate and share pipeline easements and corridors, unless it is technically infeasible.

17.5. - Application Requirements

A. In addition to the submittal requirements necessary to demonstrate compliance with the applicable Sections of the Land Use Code, applications for oil and gas facilities shall also include, when relevant, the following:
   a. A Site Inventory Map,
   b. A Safety Management Plan,
d. A Noise Mitigation Plan,
e. An Emergency Preparedness Plan,
f. An Odor Mitigation Plan,
g. A Hazardous Material Plan,
h. A Dust Mitigation Plan,
i. A Site Security Plan,
j. A Production Water Supply Plan,
k. A Containment and Spill Plan,
l. A Waste Management Plan,
m. A Reclamation Plan,
n. A Surface Use Agreement,
o. A statement verifying the legal right to extract the mineral resources.

17.6. - Appeals
A. Any decision made pursuant to this section may be appealed pursuant to Section 22 of the Larimer County Code.

17.7. - Enforcement and Inspection
A. Applicants shall demonstrate compliance with the Larimer County Land Use Code, and with this Section. Failure to maintain compliance with the County approval of an oil and gas facility may result in the revocation of the approval pursuant to the procedures in Section 12 of the Land Use Code. The County retains the right to seek whatever remedy or redress is legally allowable.
B. The County reserves the right to inspect the property for compliance.

17.8. - Fees and Security for Reclamation
A. The following fees are applicable to oil and gas facilities.
   a. TBD
B. An impact fee will be assessed as follows:
   a. Capital Transportation Impact Fees
C. Each application shall include financial security for the purpose of ensuring maintenance and reclamation may be accomplished if the applicant is unable or unwilling to perform its obligations.

17.9. - Termination of Use or Modification.
A. No modification to an approved oil and gas facility shall be made without obtaining appropriate land use approval from the county.
B. Upon termination of use, the oil and gas facility must be reclaimed pursuant to the reclamation plan provided.

17.10. - Definitions.
A. Unless otherwise listed herein, the definitions found within the Colorado Revised Statutes and COGCC regulations shall control.
Environmental Science Advisory Board (ESAB)
Here are changes suggested by the work group from the esab all of whom work in the energy field.

Note: This will be a new Section in the Larimer County Land Use Code. This is a preliminary outline of draft oil and gas regulations and is not all inclusive. NEED TO NUMBER THE PAGES

To keep the Task Force Committee discussion on track, please focus comments to the intent and purpose of the standards and avoid refrain from making small edits.

17.0. – OIL AND GAS FACILITIES

17.1. – Intent and Purpose.

A. **Intent and Purpose:** The Intent and purpose of this section is to establish and administer necessary and reasonable regulations for oil and gas drilling and production in a manner that protects and promotes the health, safety, and general welfare of the residents and environment of the County. To the extent practicable these regulations will require applications for oil and gas operations to demonstrate how adverse impacts will be mitigated to achieve a minimal negative impact on the environment, wildlife and residents of the County, **perhaps a sentence to acknowledge the rights of surface owners and referencing the relevant section of the CO constitution may be in order.**

B. **Authority:** Pursuant to the authority granted to the County in C.R.S. 29-20-104(1) the review of such applications may include, without limitation: It was suggested that in a county 1041 process the applicant has to propose 3 sites for an oil gas facility. Industry personnel may be familiar with the need to evaluate three sites under 1041 so it might work for them here.

1. Land Use,
2. Location and siting of oil and gas facilities,
3. Impacts to public facilities and services,
4. Water quality and source, noise, vibration, odor, light, dust, air emissions and air quality, land disturbance, reclamation procedures, cultural resources, emergency preparedness, and coordination with first responders, security and traffic and transportation impacts,
5. Financial securities, indemnification and insurance as appropriate to ensure compliance with the requirements of Larimer County, and
6. All other nuisance-type effects of oil and gas development.

C. **Applicability:** These regulations shall be applicable to all oil and gas drilling and production activity commenced on any property in Larimer County, after the date of ____________, regardless of what zoning district the property is situated in.

D. **Severability:** If any sections, 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 the section shall not be affected thereby and is hereby declared to be necessary for the public health, safety and welfare.

17.2. – Required Process and Permits

A. **Required Process:**
a. Oil and gas drilling and production activities in Larimer County shall require Special Review approval (Section 4.5). Should we state when the approval must be obtained, i.e., prior to submittal to Colorado Oil and Gas Commission (COGCC)? Adapt and conform the special review approval so it is relevant to the particulars of the oil and gas industry vs other applications of the special review process. In addition to B below, is there something about the practices and time frames of oil and gas fracking which might suggest different timing notice and process requirements within section 4.5.3? Application of this to ag should be a test pilot project. Not clear it makes sense. We were advised that the state requires concurrent processing of state and county permits. If true that would seem to respond to this question.

B. Supplemental Review Criteria for Oil and Gas Facilities:
   a. In addition to the Special Review criteria found in Section 4.5.3 of this Code, each oil and gas facility shall be approved only if it meets the following criteria:
      i. It complies all the requirements of this Section 17.
      ii. Reasonable and necessary mitigation steps have been taken to protect the public health, safety, and welfare and environment
      iii. The exception from the special review process where an administrative decision is made in lieu of special review needs clear standards specifying the scope of administrative review, what shall be produced by the applicant, and what standards will be applied to a decision upon administrative review. Perhaps a small simpler project request does not require all the submittals outlined in 17.5

C. Permits required: in the reg or in an information sheet there should be an explanation of where this land use approval special process fits in the development process of a fracking facility. This Section C seems to suggest that each of these is required before or after (unclear) the approval of the special review, presumably before:
   a. Access permits
   b. Building permits as required for structures
   c. Development Construction permit
   d. All federal, state and local permits for oil and gas operations

17.3. – Standards Required for all Oil and Gas Facilities

A. General:
   1. All applicants are responsible for compliance with applicable federal, state and local laws and regulations for the operation of Oil & Gas facilities.
   2. Oil and Gas facilities should be located to minimize impacts on agricultural operations.

B. Air Quality:
   1. The use? shall comply with existing federal and state laws and regulations applicable to its operations and emission sources as well as any future laws and regulations adopted by the Colorado Air Quality Control Commission (AQCC).
   2. Air contaminant emission sources shall apply for and comply with the permit and control provisions prescribed by the Colorado APCD C.R.S. tit.25, Art. 7 (C.R.S. § 25-7-101 et seq.) and the rules and regulations promulgated by the AQCC all applicable emission sources.
   3. Environmental Protection Agency (EPA) Reduced Emission Completions shall be used for all completions and well workovers following hydraulic fracturing, unless the
application demonstrates that it is economically infeasible or impractical to utilize such a system.

4. Closed loop, pitless drilling, completion systems without permanent on-site storage tanks must be utilized for containment and/or recycling of all drilling, completion, and flowback fluids, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system. All emissions shall be routed to and controlled by a flare or combustor operated with at least 98% destruction removal efficiency.

5. Oil and Gas facilities shall be equipped with electric-powered engines for motors, compressors, drilling and production equipment, and pumping systems, unless it is demonstrated by the application materials the utilization of such equipment is not economically feasible or practical.

6. During construction and exploration, the applicant shall demonstrate that the site, including traffic and construction equipment, complies with all AQCC standards.

7. Oil and gas operators shall respond to air quality action day advisories posted by the CDPHE for the front range area by implementing air reduction measures, which should include:
   a. Minimizing vehicle traffic and engine idling;
   b. Reduced truck and worker traffic;
   c. Delay vehicle refueling;
   d. Suspend or delay use of fossil fuel powered ancillary equipment;
   e. Postpone construction or maintenance activities; and
   f. Postpone maintenance and liquid unloading activities that would result in emission to the atmosphere.

With respect to Sections C and D below the group wanted to know what the County will do with the reports and information obtained. Would it be used for case by case enforcement, to discover trends in spills and how they are responded to? To consider amendments to these regs?

C. Leak Detection and Repair: It is unclear whether independent third party testing will be required. This would be in the reg vs the county leasing or purchasing testing equipment which would appear in the reg as a requirement for County-led testing. This should be run by CDPHE clarity and coordination with their practice and process. Does this suggest we need to be stricter than the State? Does this suggest there are certain types of facilities that the state does not inspect, test regulate that by this the County seeks to regulate?

1. Oil and gas facilities shall at a minimum conduct semi-annual leak detection and repair (LDAR) inspections using modern leak detection technologies and equipment. One of the Semi-annual LDAR inspections shall include a five-day notice to the County Local Government Designee (LGD) and County Health Department inviting them to observe, at their discretion, the inspection.

2. Verified leaks to an oil and gas facility shall be reported to the County LGD and County Health Department within 24 hours of the discovered leak.

3. All verified leaks shall be repaired within 72 hours, unless technically or operationally infeasible.

4. Equipment leaks that pose an imminent hazard to persons, property, wildlife or the environment shall be shut down and not allowed to operate until the operator has provided evidence that the leak has been repaired.

D. Spills and Releases: With respect to Sections C above and D, there needs to be a definition of what constitutes a leak and a spill. Assuming there is something about the State regs...
that comes thru 17.10 below on definitions, it needs to be clear whether the county definitions of leak and spill is more strict than or equal to the state definition of leak and spill in their regs. Consideration should be given as to Whether to incorporate the State definition into this reg for ease of enforcement and reference.

1. Any spill or release at an oil and gas facility, including those reportable to the COGCC, shall be immediately reported, no later than 24 hours after the event, to the following local emergency response authorities in Larimer County:
   a. Larimer County Sheriff
   b. Larimer County Department of Health and Environment
   c. Larimer County Local emergency Planning Committee
   d. Larimer County Oil and Gas LGD
   e. Local Municipal Police Department if within one mile of a city or town
   f. Local Fire Department

2. All spills or releases shall be cleaned up to the satisfaction of the local emergency response authorities, listed in Item 1 above. Remediation of spills or releases reportable to the COGCC may be deferred to the COGCC and CDPHE.

E. Well Liquids Unloading:
1. Best management practices, including artificial lift, automated plunger lifts and at least 90% emissions when utilizing combustion to control venting shall be employed at all facilities.

2. Approved manual unloading shall require on-site supervision of the uploading process.

F. Noise:
1. A three-day (one day being a weekend day) baseline noise analysis from all receptors within 350 feet of the proposed use, or the property line, whichever is closest to the proposed oil and gas facility, shall be provided.

2. Predicted decibel levels shall be provided for various phases of development, as measured 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning or other local land use designation.

3. Proposed mitigation measures demonstrating that the oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County:

4. Decibel levels shall meet the identified level for the appropriate activity and adjacent land use. Decibels shall be measured at 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greater. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning or other local land use designation.

5. Oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County:

<table>
<thead>
<tr>
<th>ZONE</th>
<th>7:00 am to next 7:00 pm</th>
<th>7:00 pm to next 7:00 am</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential/Agricultural/Rural</td>
<td>55 db(A)</td>
<td>50 db(A)</td>
</tr>
</tbody>
</table>

Commented [LMK20]: 1a?

Commented [LMK21]:

Commented [LS22]: This is an application requirement, not a Standard for Development? Maybe for this section, use:

1. Decibel levels shall meet the identified level for the appropriate activity and adjacent land use. Decibels shall be measured at 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning or other local land use designation.

2. Oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County: and then keep the decibel chart here?

Relocate items 1-3 to the section relating to the application requirements?
<table>
<thead>
<tr>
<th>Commercial</th>
<th>60 db(A)</th>
<th>55 db(A)</th>
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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 db(A) for a period of not to exceed fifteen minutes in any one-hour period.

Construction projects (pipeline or facility construction/installation) shall be subject to the maximum permissible noise levels specified for industrial zones for the period within which construction is to be completed pursuant to any applicable construction permit issued by proper authority or, if no time limitation is imposed, for a reasonable period of time for completion of project.

G. Odors:
1. Oil and gas operations shall be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII.
2. Operations shall prevent odors from oil and gas facilities from affecting the health and welfare of the public during development activities including drilling, fracking, and flowback to the extent reasonably possible.
3. A system shall be established for immediate response to odor complaints that includes options for ceasing operations, notification of affected residents, and temporary relocation of residents until the source of the odor is identified and resolved.
4. We encourage the Operator to communicate the schedule/timing of well completions activities to residents, which could allow for voluntary shutting of windows and air intakes or temporary relocation.

H. Dust:
1. Best management practices for the mitigation of dust associated with on-site and traffic activities shall be employed at the facility.
2. Produced water and other process fluids shall not be used for dust suppression.
3. Safety Data Sheets (SDS) shall be provided with the application for any proposed chemical based dust suppressants.
4. Water only, unless otherwise approved by the County Health and Engineering Department, will be used for dust suppression activities within 300 feet of the ordinary high-water mark of any body of water.

I. Access:
1. 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:
   a. The first 50 feet of access drive from the edge of pavement of the adjacent road will be paved and the remaining portions of the access drive shall be composed of a minimum of 6 inches of compacted Class 5 road base.
   b. The access drive entrance shall include returns with a 30-foot radius.
   c. The access drive shall be treated with Magnesium Chloride during the entire construction phase, and any time there after when the level of use exceeds 200 vehicle trips per day.
d. A mud and debris tracking pad shall be located at the end of the paved portion of the access drive.

J. Chemical Handling:
   1. Prior to any hydraulic fracturing activity, the operator shall provide the County with a copy on the chemical disclosure registry form provided to the COGCC pursuant to the COGCC’s “Hydraulic Fracturing Chemical Disclosure”.
   2. Drilling and completion chemicals shall be removed from the site within sixty days of the drilling completion.
   3. The following toxic, including orally toxic chemicals shall not be added or utilized in the hydraulic fracturing fluid:
      a. Benzene
      b. Lead
      c. Mercury
      d. Arsenic
      e. Cadmium
      f. Chromium
      g. Ethylbenzene
      h. Xylene
      i. 1,3,5-trimethylbenzene
      j. 1,4-dioxane
      k. 1-butanol
      l. 2-butoxyethanol
      m. N,N-dimethylformamide
      n. 2-ethylhexanol
      o. 2-mercaptoethanol
      p. Benzene, 1, 1'-oxybis-,tetrapropylene derivatives, sulfonated, sodium salts
      q. Butyl glycidyl ether
      r. Polysorbate 80
      s. Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides
      t. Bis hexamethylene triamine penta methylene phosphonic acid
      u. Diethylenetriamine penta
      v. FD&C blue no 1.
      w. Tetrakis (triethanolaminato) zirconium (IV) (TTZ)

   w. It was felt the safety data sheet would be a more positive reliable indicator than a list of prohibited chemicals. This list is not realistic as to fracking fluids since it prohibits benzene, lead and mercury. This list should not be extended to apply to flow back produced fluids since the owner operator has little or no control over what percolates up or volatilizes from the subsurface or surface. Perhaps this list should be about requiring less toxic alternatives.

K. Recycle, Reuse and Disposal of Fluids:
   1. Drilling, completion flowback and produced fluids shall be recycled, unless technically infeasible.
   2. Exploration and production waste may be temporarily stored, not to exceed two weeks, in tanks while awaiting transport to licensed disposal or recycling sites.
3. Produced water shall be transported by pipeline unless economically or technically infeasible.

L. Water Bodies:
1. The applicant shall provide documentation to the County, as required by the COGCC, demonstrating how the COGCC water quality protection standards are being complied with.
2. The Larimer County Health Department shall be provided with all water source tests, that are typically submitted to the COGCC or CDPHE.
3. Proposed oil and gas operations proposed with in a flood plain shall require review and approval of the Floodplain Permit prior to the Board of County Commissioners hearing for an oil and gas special review application.
4. Produced water disposal via wastewater injection wells shall not be allowed.

M. Visual:
1. The application shall demonstrate compliance with the visual and aesthetic rules of COGCC and the Larimer County regulations for landscaping, fencing and lighting for all phase of the development of the site.
2. All oil and gas facilities shall be painted with colors that are matched to or slightly darker than the surrounding landscape, and shall utilized paint with uniform, noncontracting, nonreflective color tones based upon the Munsell Soil Color Coding System.
3. The location of all outdoor lighting shall be designed to minimize off-site light spillage and glare.
4. Fencing shall for all the phases of an Oil and Gas facility development to ensure the security and visual aesthetics of the use.
5. Landscaping for screening and visual quality from off-site shall be required within 6 months from the time of well completion.
6. Oil and Gas facility applications, including access roads serving the facility, shall demonstrate how compliance with weed control requirements of the County Weed District and Forestry Services Department will be met.

N. Well Plugging and Abandonment:
1. Well abandonment and reclamation shall comply with the COGCC rules, and shall include the following:
   a. Removal of all equipment from the well site,
   b. Restoration of the site surface to the conditions of the site reclamation plan,
   c. Notice to the County LGD of the commencement and completion of such activity, and
   d. 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.

O. Flammable Material:
1. The location of flammable materials on site shall conform to all COGCC safety standards and local fire codes.
2. A minimum 25-foot buffer, free of weeds and dried grasses, shall be required around anything flammable.

P. Waste Disposal:
1. Oil and gas facilities shall remain free of debris and excess materials during all phases of operation.
2. Burning of debris, trash or other flammable material is not allowed.

Q. Removal of Equipment:
1. There shall be no permanent storage of equipment on the site of an oil and gas facility.
2. When not in use, or no longer needed for on-site operations all equipment not being used on the site shall be removed.

R. Maintenance of Machinery:
1. There shall be no maintenance of field equipment involving hazardous material within 300 feet of a water body.
2. Any fueling on-site shall occur over an impervious surface and shall not occur during storm events.

S. Flow Lines, Transfer Lines and Gathering Lines:
1. All off-site lines transporting process materials, production wastes, product and any other items used of 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.
2. The location of pipelines shall be evaluated on a case by case basis, with determine locational factor being the size and type of pipeline being proposed.
3. Coordinates of all flow lines, gathering lines, and transfer lines shall be provided.

T. Temporary Water Lines:
1. Temporary waterlines shall be used, unless technically infeasible.
2. Temporary waterlines shall be buried at all existing driveway and road crossing, or utilize existing culverts, if available.

U. Financial Assurance:
1. The operator/Applicant must demonstrate the financial capability to reclaim all disturbed areas during each phase of the site development and following termination of the oil and gas operation on the site.
2. The operator/Applicant must, for the life of the use, carry environmental liability insurance for gradual all potential pollution events.

17.4. - Guidelines for Oil and Gas Developments
A. Applications for oil and gas facilities are strongly encouraged to incorporate the following guidelines (best management practices). Where reasonably necessary, the County may require some or all of the following guidelines depending on the location and characteristics of the proposed facility.
1. To mitigate the adverse impacts of air emissions generated by oil and gas facilities, operator/Applicants are encouraged to:
a. use tankless production techniques,
b. use zero emission dehydrators,
c. use pressure-suitable separator and vapor recovery units,
d. use no-bleed continuous and intermittent pneumatic devices, or alternatives such as replacing natural gas with electric or instrument air, or by routing discharged emissions to closed loop-systems of processes,
e. use automated tank gauging, and
f. eliminate all flaring except during emergencies or upset conditions, which shall be reported to the County (see [std] ).

2. To mitigate the adverse impacts of odor generated by oil and gas facilities, 
   operatorsApplicants are encouraged to:
   a. Add odorants that are not a masking agent, to adding chillers to the mud systems,
   b. Using filtration systems or additives to minimize odors from drilling and fracturing fluids except that the operatorApplicant shall not mask odors by using masking fragrances,
   c. Enclose shale shaker to contain fumes from exposed mud where safe and feasible,
   d. Wipe down drill pipe each time drilling operation “trips” out of hole,
   e. Increasing additive concentration during peak hours provided additive does not create a separate odor. Additive must be used per manufacturer’s recommended level,
   f. Use minimum low odor Category III drilling fluid. This could include non-diesel baseddiesel-based drilling muds including drilling muds that are low odor and do not contain benzene, toluene, ethylbenzene or xylene (BTEX), or
   g. Apply ‘green frac’ methods, utilizing only sand and water as fracking materials or other ‘green frac’ materials agreed upon between the community and industry,
   and
   h. The OperatorApplicant is encouraged to communicate the schedule/timing of well completions activities to residents, which could allow for voluntary shutting of windows and air intakes or temporary relocation.

3. To mitigate the impacts of multiple pipeline corridors, operatorsApplicants are encouraged to consolidate and share pipeline easements and corridors, unless it is technically infeasible.

17.5. - Application Requirements see comment above at 17.2 C regarding context/sequencing of this approval.

A. In addition to the submittal requirements necessary to demonstrate compliance with the applicable Sections of the Land Use Code, applications for oil and gas facilities shall also include, when relevant, the following: should there be a chemicals handling plan regarding fracking fluids? Is this subsumed in one of these plans or maps, possibly item g? If the SDS is submitted very early before a building permit or operating permit is issued, and before the contractor is hired to operate the constructed facility, then the proposed listed of fracking fluids may change considerably from the early point of these submittals. Perhaps there should be a continuing duty to supplement at least as to fracking fluids.
   a. A Site Inventory Map,
   b. A Safety Management Plan,
   c. A Containment and Spill Prevention Plan,
   d. A Noise Mitigation Plan,

Commented [LMK35]: ?
Commented [LMK36]: Is this possible? Last I looked (a long time ago) this was cost prohibitive and not the best technology?
17.6. - Appeals
   A. Any decision made pursuant to this section may be appealed pursuant to Section 22 of the Larimer County Code.

17.7. - Enforcement and Inspection
   A. Applicants shall demonstrate compliance with the Larimer County Land Use Code, and with this Section. Failure to maintain compliance with the County approval of an oil and gas facility may result in the revocation of the approval pursuant to the procedures in Section 12 of the Land Use Code. The County retains the right to seek whatever remedy or redress is legally allowable.
   B. The County reserves the right to inspect the property for compliance.

17.8. - Fees and Security for Reclamation
   A. The following fees are applicable to oil and gas facilities.
      a. TBD
   B. An impact fee will be assessed as follows:
      a. Capital Transportation Impact Fees
   C. Each application shall include financial security for the purpose of ensuring maintenance and reclamation may be accomplished if the applicant is unable or unwilling to perform its obligations.

17.9. - Termination of Use or Modification
   A. No modification to an approved oil and gas facility shall be made without obtaining appropriate land use approval from the county.
   B. Upon termination of use, the oil and gas facility must be reclaimed pursuant to the reclamation plan provided.

17.10. - Definitions.
   A. Unless otherwise listed herein, the definitions found within the Colorado Revised Statutes and COGCC regulations shall control.
King and Wellington Operating Companies
December 1, 2019

Matt Lafferty
Principal Planner
Larimer County Planning Department
200 W. Oak Street, Third Floor
Fort Collins, CO 80521
mlafferty@larimer.org
laffermn@co.larimer.co.us

RE: Public Comment on Proposed Draft Oil & Gas Regulations

Mr. Lafferty:

In response to the request for public comments regarding Larimer County’s proposed draft oil and gas regulations, King Operating Corporation ("King"), an oil and gas lease holder in Larimer County, and Wellington Operating Company ("Wellington"), the operator of the Wellington Muddy Sandstone Unit, submit the following comments, attached hereto.

King and Wellington appreciate the opportunity to provide input on the proposed regulations and wish to participate as an engaged stakeholder going forward. In the interest of efficiency, we are submitting our collective comments to the draft oil and gas rules. Wellington has been an operator in the County for over thirty years, without incident, and the Wellington Field has been continuously produced since 1923. Wellington offers the perspective of a long-term operator in the County and who is deeply familiar with the issues relating to mature, conventional oil and gas operations and changing land use. King provides the perspective of a new operator seeking to invest in Larimer County.

We believe that with prudent regulation, residents can have a healthy environment and a diversified economy. We have worked hard to be good neighbors and establish collaborative relationships with surface owners in our respective operating areas and believe the rules should provide responsible, responsive operators with efficient review and timely regulatory approval. County regulations can contribute to protecting the public’s safety and the environment by considering that circumstances unique to Larimer County, but should not be duplicative of State and Federal regulations and there should be a clear path to timely regulatory approval of projects that are compliant with the regulations.

Accordingly, we encourage the County to consider adopting a two-track process whereby, under appropriate circumstances, an operator may seek administrative approval of oil and gas development without the need for a hearing. Administrative approval is appropriate where the surface owner(s) support oil and gas development and where low environmental impacts are anticipated. We look forward to participating in the ongoing dialogue regarding the appropriate criteria for administrative review.

We also hope the rule making acknowledges that each oil and gas field involves a unique combination of surface conditions, subsurface geology and resources, and technical constraints; and, that these circumstances can change over the decades an oil and gas field can operate. Good regulations rely on goal-based performance criteria to achieve policy objectives, and do not impose “one-size-fits-all” technical requirements that may or may not be suitable given the specific circumstances and can discourage innovation and deployment of new, technologies that may facilitate achieving the County’s policy objectives. And, in some cases, prescriptive technical and, or operating rules can have unintended consequences, by failing to consider the entirety of the circumstance, that may damage the environment and, or reduce safety.
Lastly, the rules should accommodate existing operations that may be unable to comply with new standards due to changing land use over the past century and the geologically controlled, pre-existing infrastructure that cannot be duplicated, or moved. Land use changes have, and may bring residences, commercial structures, or even ponds and water bodies to an oil and gas facility long after it is constructed. County regulations should acknowledge and accommodate historical prior use and attempt to prevent this type of encroachment in the future.

Thank you for your time and consideration.

Respectfully,

/s/ Mr. Jay Young
President
King Operating Corporation

/s/ Mr. Bradley Pomeroy
President
Wellington Operating Company

Attachments:

1. King and Wellington Comments on Larimer County’s Draft Oil & Gas Regulations
2. Appendix A
Comments on Larimer County’s Draft (Version 1) Oil & Gas Regulations
King Operating Corporation and Wellington Operating Company

<table>
<thead>
<tr>
<th>Draft Regulation</th>
<th>Comment</th>
<th>Similar State Rule or Regulation</th>
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<td><strong>17.0 OIL AND GAS FACILITIES</strong></td>
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<td><strong>17.1 Intent and Purpose.</strong></td>
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<td><strong>A. Intent and Purpose:</strong> The Intent and purpose of this section is to establish and administer necessary and reasonable regulations for oil and gas drilling and production in a manner that protects and promotes the health, safety, and general welfare of the residents and environment of the County. To the extent practicable these regulations will require applications for oil and gas operations to demonstrate how adverse impacts will be mitigated to achieve a minimal negative impact on the environment, wildlife and residents of the County.</td>
<td>The regulations should promote both economic growth and environmental protection. We propose alternative language similar to the oil and gas regulations from Adams County’s Oil and Gas Regulations (§§2-02-14-01 and 4-10-02-03-03-01) as set forth in Appendix A which acknowledge the economic benefits of responsible oil and gas operations and the property rights of mineral and surface owners, attached hereto, which may serve to similarly accomplish the proposed goal for this provision.</td>
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<td><strong>B. Authority:</strong> Pursuant to the authority granted to the County in C.R.S. 29-20-104(1) the review of such applications may include, without limitation:</td>
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<tr>
<td>1. Land Use,</td>
<td>We have concerns regarding the complications of multiple county departments reviewing each, individual application.</td>
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<td>2. Location and siting of oil and gas facilities,</td>
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<td>3. Impacts to public facilities and services,</td>
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<td>4. Water quality and source, noise, vibration, odor, light, dust, air emissions and air quality, land disturbance, reclamation procedures, cultural resources, emergency preparedness, and coordination with first responders, security and traffic and transportation impacts,</td>
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<td>5. Financial securities, indemnification and insurance as appropriate to ensure compliance with the requirements of Larimer County, and</td>
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6. All other nuisance-type effects of oil and gas development.

C. **Applicability:** These regulations shall be applicable to all oil and gas drilling and production activity commenced on any property in Larimer County, after the date of ____________, regardless of what zoning district the property is situated in.

The date of applicability must not be retroactive.

D. **Severability:** If any sections, 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 the section shall not be affected thereby and is hereby declared to be necessary for the public health, safety and welfare.

### 17.2 Required Process and Permits.

A. **Required Process:**

a. Oil and gas drilling and production activities in Larimer County shall require Special Review approval (Section 4.5). Should we state when the approval must be obtained, i.e. prior to submittal to Colorado Oil and Gas Commission (COGCC)?

The County should accept, and process permit applications while state and federal approval is pending.

Currently, the Colorado Oil and Gas Conservation Commission (“COGCC”) will not approve an APD until the operator can certify on the permit application that (1) it has filed a permit with the local jurisdiction with siting authority and (2) that local jurisdiction has issued a final disposition (meaning that the local government has made the final siting determination or waived the statutory provision allowing it to undertake siting in the first place). Consequently, the County rules, as drafted, set up a “Catch-22”: the State will not consider a permit until the County has made a determination, but the County won’t make a determination without State approval of an APD.

Does the County intend to waive its siting authority (much as Weld County has done) insofar as it is required that an operator secure disposition of a permit application from a jurisdiction with local siting authority prior to filing permits with the State?

The rules should provide a timeframe for approval. Based on the current draft of proposed regulations, no clear guardrails appear in place for timely approval or denial of permits. Same concern carries through to Access Permits (§ C.a., infra), Building permits (§ C.b., infra) and Development Construction permits (§ C.c, infra).

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See COGCC Operator Guidance, SB 19-181: Hearings and Permit Applications (“SB 181 Guidance”), available as provided in Appendix A.
Corresponding revisions to Zoning Tables in §§ 4.1 and 4.3.7.F of the Code need updates to the Zones in which oil and gas development requires Special Use Review.

Lastly, we request the County clarify that existing sources and sites are grandfathered into any new regulations.

B. **Supplemental Review Criteria for Oil and Gas Facilities:**

a. In addition to the Special Review criteria found in Section 4.5.3 of this Code, each oil and gas facility shall be approved only if it meets the following criteria:
   
i. It complies all the requirements of this Section 17.
   
ii. Reasonable and necessary mitigation steps have been taken to protect the public health, safety, and welfare and environment.

Lack of clarity regarding the differences between § 17.2.B.a.i. and ii. Subsection ii. is reiterative of requirements necessary for approval or permits by the COGCC pursuant to the chances to the Oil and Gas Act resulting from the enactment of Colorado Senate Bill 2019-181. In that regard, compliance with state and federal requirements should presumptively establish that reasonable and necessary mitigation steps have been taken.

How does the County intend to make a determination or what criterion will be used to determine “reasonable and necessary?”

Furthermore, to the extent a dispute exists, does the County have a conflict resolution process that will allow for a timely decision?

We also propose County revise § 17.B.a.ii. to include “technically feasible”

C. **Permits Required:**

a. Access permits
b. Building permits as required for structures
c. Development Construction permit
d. All federal, state and local permits for oil and gas operations

Section 18.2.C.d. is inconsistent with the requirements of the state permitting process which requires an operator submit and obtain approval of permits from the local jurisdiction with siting authority before filing permit applications with the state.

See SB 181 Guidance, supra.

17.3 **Standards Required for all Oil and Gas Facilities.**

A. **General:**

1. All applicants are responsible for compliance with applicable federal, state and local laws and regulations for the operation of Oil & Gas facilities.

**Comment(s) re: 17.3.A.1.:** Will existing oil and gas operations be grandfathered?

**Comment(s) re: 17.3.A.2.:** “Minimize impacts” is vague, and the process for making this determination is unclear. No further action should be required if an operator and the surface owner have negotiated and executed
2. Oil and Gas facilities should be located to minimize impacts on agricultural operations, and a surface use agreement covering the proposed surface location.

B. Air Quality:

1. The use shall comply with existing federal and state laws and regulations applicable to its operations and emission sources as well as any future laws and regulations adopted by the Colorado Air Quality Control Commission (AQCC).

2. Air contaminant emission sources shall apply for and comply with the permit and control provisions prescribed by the Colorado APCD C.R.S. tit. 25, Art. 7 (C.R.S. § 25-7-101 et seq.) and the rules and regulations promulgated by the AQCC all applicable emission sources.

3. Environmental Protection Agency (EPA) Reduced Emission Completions shall be used for all completions and well workovers following hydraulic fracturing, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system.

4. Closed loop, pitless drilling, completion systems without permanent on-site storage tanks must be utilized for containment and/or recycling of all drilling, completion, and flowback fluids, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system. All emissions shall be routed to and controlled by a flare or combustor operated with at least 98% destruction removal efficiency.

5. Oil and Gas facilities shall be equipped with electric-powered engines for motors, compressors, drilling and production equipment, and pumping systems, unless it is demonstrated by the application materials the utilization of such equipment is not economically feasible or practical.

6. During construction and exploration, the applicant shall demonstrate that the site, including traffic and construction equipment, complies with all AQCC standards.

7. Oil and gas operators shall respond to air quality action day Colorado has the nation’s most stringent air quality rules and will adopt more in 2019-2020. We propose the County rely on state and federal rules unless local conditions necessitate additional regulations.

Comment(s) re: 17.3. B.3.: We propose inserting the word “technically” prior to “impractical.”

Comment(s) re: 17.3. B.4.: “All emissions” should not include fugitive emissions, which by definition cannot reasonably be routed to a control device. We have concerns regarding the technical feasibility of these requirements (including but not limited to 98% destruction efficiency) and their potential to cause more significant adverse impacts than those being mitigated. Further, by being prescriptive as to the allowable technologies, this rule precludes innovation and adoption or practice that may be more effective in achieving the goal of protecting air quality.

We propose the County insert “technically” prior to word “impractical.”

Comment(s) re: 17.3. B.5.: How does the County intend to make a determination or what criterion will be used to determine what is “economic” and “feasible”? Furthermore, to the extent a dispute exists, does the County have a conflict resolution process?

A requirement to use electric powered mobile engines is likely pre-empted by the Federal Clean Air Act.

Electric drilling and work over rigs are uncommon and equipment is not widely available and requires onsite generation, which in itself creates emissions or requires construction of infrastructure. We propose alternative language regarding governance of emissions using Best Management Practices (“BMPs”). We propose inserting the word “technically” prior to the word “impractical.”

Comment(s) re: 17.3. B.6.: See Whitepaper. (Nov. 1, 2019) (“Whitepaper”) at p. 19, available as provided in Appendix A (“Staff proposes amending Rule 805.c. to require operators to develop a dust control plan. The plan would address each phase of oil and gas operation AQCC Reg. 7 addresses storage tank design and control, flare/combustor standards, destruction efficiency, venting, engine standards, pneumatic pumps and controllers, recordkeeping and reporting. CDPHE air permits often impose additional requirements.

17.3. B.3, green completions: COGCC Rule 805.b.3(A); 40 C.F.R. §§60.5375, 5375a; Colo. AQCC Reg. 6 (incorporating 40 CFR Part 60, Subpart OOOO)

17.3. b.4, drilling standards: COGCC Rules 317B, 323, 604; COGCC 900 series rules

17.3. B.6, construction: AQCC Reg. 1 § III.D; EPA vehicle standards
advisories posted by the CDPHE for the front range area by implementing air reduction measures, which should include:

- Minimizing vehicle traffic and engine idling;
- Reduced truck and worker traffic;
- Delay vehicle refueling;
- Suspend or delay use of fossil fuel powered ancillary equipment;
- Postpone construction or maintenance activities; and
- Postpone maintenance and liquid unloading activities that would result in emission to the atmosphere.

and propose site-specific BMPs to minimize and suppress dust.

Comment(s) re: 17.3.B.7.: What is the standard for economical and feasible, and how are disputes in concerning that determination resolved.

CDPHE issues ozone advisories as part of a voluntary program that lacks regulatory standards and is designed to provide flexibility and operators implement a range of response options. Depending on the circumstances, some responses may be inapplicable or infeasible, and a blanket requirement to implement specific response actions is problematic. For example, there may be operational needs to drive vehicles, refuel, or use ancillary equipment to conduct maintenance or repair leaks on ozone advisory days. We support a requirement to participate in CDPHE’s otherwise-voluntary ozone action program if operators retain the flexibility to select appropriate response actions.

C. Leak Detection and Repair:

1. Oil and gas facilities shall at a minimum conduct semi-annual leak detection and repair (LDAR) inspections using modern leak detection technologies and equipment. One of the Semi-annual LDAR inspections shall include a five-day notice to the County Local Government Designee (LGD) and County Health Department inviting them to observe, at their discretion, the inspection.

2. Verified leaks to an oil and gas facility shall be reported to the County LGD and County Health Department within 24 hours of the discovered leak.

3. All verified leaks shall be repaired within 72 hours, unless technically or operationally infeasible.

4. Equipment leaks that pose an imminent hazard to persons, property, wildlife or the environment shall be shut down and not allowed to operate until the operator has provided evidence that the leak has been repaired.

Comment(s) re: 17.3.C.1.: CDPHE mandates monthly to annual inspections, depending on facility emissions rate. On December 17-19, 2019, the AQCC will consider a proposal to increase LDAR frequency. We would suggest the County rely on state regulations, current and future. Recommend clarifying that § 17.3.C, applies only to leaks of “regulated air pollutants” and not liquids.

Comment(s) re: 17.3.C.2.: Unclear what is intended by “verified” leaks. Operators should be allowed to proactively repair leaks without first verifying that a leak exists. County rules should be consistent with the AQCC’s leak repair and reporting requirements.

Comment(s) re: 17.3.C.3.: Repair deadlines should allow time for unsuccessful repairs, parts unavailability, and the potential need to shut down. We propose a 72-hour extension if an appropriate response plan is in place.

Furthermore, we recommend following CDPHE’s leak inspection and AQCC Reg. 7 §§ XII.L, XVII.C, E & F. 40 C.F.R. 60.5397a
repair requirements (which have detailed provisions defining leaks requiring repair and governing situations where inspection or repair is unsafe, parts are unavailable, or the repair may cause more emissions than the leak itself (e.g., equipment blowdown)).

Comment(s) re: 17.3.C.4.:

Clarify that an “imminent hazard” means an imminent safety risk.

Most leaks are repaired on the spot, in which case shutdown is unnecessary and may cause unnecessary emissions.

Lastly, there are operating conditions such as well control events where a shut-down can result in an inherently more dangerous and unstable operating condition. We would suggest the following language: “shall be repaired in such a manner as to reduce the hazard as quickly as possible consistent with safety standards and practices.”
D. Spills and Releases:

1. Any spill or release at an oil and gas facility, including those reportable to the COGCC, shall be immediately reported, no later than 24 hours after the event, to the following local emergency response authorities in Larimer County:
   a. Larimer County Sheriff
   b. Larimer County Department of Health and Environment
   c. Larimer County Local Emergency Planning Committee
   d. Larimer County Oil and Gas LGD
   e. Local Municipal Police Department if within one mile of a city or town
   f. Local Fire Department

2. All spills or releases shall be cleaned up to the satisfaction of the local emergency response authorities, listed in item 1 above. Remediation of spills or releases reportable to the COGCC may be deferred to the COGCC and CDPHE.

Comment(s) re: 17.3.D.:
The proposed regulation addresses (1) reporting and (2) cleanup of spills/releases, which are duplicative of existing COGCC Rules that address prevention of spills/releases. We recommend maintaining consistency with existing COGCC rules.

Comment(s) re: 17.3.D.1.:
The rule should be clear that it only applies to a spill or release of a regulated pollutant. The rule should specify the types of spills/releases and the types of regulations that are more stringent than COGCC regulations. It should be noted that single point reporting to emergency responders provides for a greater level of agency coordination and reduces the risk of incomplete information sharing. If reporting is required within 24 hours, reporting infrastructure and procedures need to be in place within each listed agency for accepting reports on weekends and holidays.

We would propose establishing reporting thresholds and clarifying that spills/releases below the thresholds are not reportable. For a Spill Prevention, Control, and Countermeasure (SPCC) Plan, typically there are triggers for “immediate” notifications if an incident poses an immediate threat of fire, explosion, or other impact to safety, health, or the environment. SPCC Plans impose lesser requirements for spills/releases that are insufficient volumes to create a hazard.

Lastly, reporting rules should integrate with emergency response procedures to avoid duplicative reporting and ensure critical information is transmitted to the appropriate authorities in a timely, concise and clear way. Before promulgating additional requirements, the County should establish a clear plan regarding how it will use the information to increase safety and protect the environment.

See COGCC 100-Series Definitions for SPILL and EXPLORATION AND PRODUCTION WASTE (E&P WASTE), as provided in Appendix A.

E. Well Liquids Unloading:

1. Best management practices, including artificial lift, automated plunger lifts and at least 90% emissions when utilizing combustion
2. Approved manual unloading shall require on-site supervision of the uploading process.

F. Noise:

1. A three-day (one day being a weekend day) baseline noise analysis from all receptors within 350 feet of the proposed use, or the property line, whichever is closest to the proposed oil and gas facility, shall be provided.

2. Predicted decibel levels shall be provided for various phases of development, as measured 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning of other local land use designation.

3. Proposed mitigation measures demonstrating that the oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County:

4. Decibel levels shall meet the identified level for the appropriate activity and adjacent land use. Decibels shall be measured at 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning or other local land use designation.

5. Oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County:

COGCC Rule 802 addresses noise abatement. We recommend consistency with state regulations unless specific neighboring land uses require additional protections.

Noise limits should grandfather existing operations and provide allowances for ambient, background noise.

Comment(s) re: 17.3.E.5.: County would be better served to rely on existing COGCC regulatory noise standards.

We would also propose a provision recognizing a Mitigation Agreement between the effected property owner and operator. Most noise impacts during oil and gas operations are temporary and transient (such as drilling operations). There should be a mechanism that allows operators and effected surface owner(s) (e.g., a receptor) to reach mutually agreeable solutions without the intervention of the County.

Any decibel standards in non-residential areas should be established in reference to ambient noise conditions. Absolute thresholds must consider time of year, weather conditions, and proximity and materiality of impacts on receptors. As an example, high winds on November 20th created 80db ambient conditions in an open field, with variations of +/-15db.

The table of maximum permissible noise levels relies on land use and zoning categories that do not align with Larimer County’s zoning districts.

Need to clarify when the noise measurement regulations are implemented. The COGCC regulations are implemented when there is a complaint. That detail was left out when the COGCC regulations were pulled into this draft.
noise levels appropriate for the zoning designation by the County (table not included)

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 period of not to exceed fifteen minutes in any one-hour period.

Construction projects (pipeline or facility construction/installation) shall be subject to the maximum permissible noise levels specified for industrial zones for the period within which construction is to be completed pursuant to any applicable construction permit issued by proper authority or, if no time limitation is imposed, for a reasonable period of time for completion of project.
Odors:

1. Oil and gas operations shall be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII.

2. Operations shall prevent odors from oil and gas facilities from affecting the health and welfare of the public during development activities including drilling, fracking, and flowback to the extent reasonably possible.

3. A system shall be established for immediate response to odor complaints that includes options for ceasing operations, notification of affected residents, and temporary relocation of residents until the source of the odor is identified and resolved.

4. We encourage the Operator to communicate the schedule/timing of well completions activities to residents, which could allow for voluntary shutting of windows and air intakes or temporary relocation.

In lieu of adopting new odor regulations, the County may consider certifying an Inspector to assist with enforcement of the Colorado odor rules under contract with the Colorado Department of Public Health and Environment. The County may also consider COGCC Rule 805.

Any County-specific rules should include provisions to differentiate odor sources, particularly near agricultural and industrial operations and landfills.

Comment(s) re: 17.3.G.1:

AQCC Reg. 2, Part A, uses a dilution ratio as a threshold for determining which odors are noncompliant. Clarify that Section 17.3.G.1 applies only to odors that are detectable after dilution with a specified ratio of odor-free air. Note that AQCC Regulations 3 & 7 do not contain odor standards.

Comment(s) re: 17.3.G.2:

This standard is vague and challenging to implement. We recommend relying on AQCC dilution ratios.

Comment(s) re: 17.3.G.3:

Proposed language is broad and this category of concerns will be addressed by COGCC in the course of its Mission Change Rulemaking.

Response options should begin with providing information, and investigating the odor complaint. If a facility is the odor source, odor mitigation actions may be taken. Cessing operations is a drastic measure that should only be compelled through an enforcement case, e.g., if a facility is confirmed to have violations of objective standards and cannot or will not mitigate odors to an acceptable level.

"Immediate response" is ambiguous and likely unattainable. Language should provide a defined period such as 24 hours.

Comment(s) re: 17.3.G.4:

Instead of specifying well completion activities, we propose the use of broader language regarding notice of activities anticipated to cause significant odors, perhaps with implementation of an online portal for facilitating communication with neighbors about the status of operations.

We also propose a notification exclusion for emergency response.

Dust:

Comment(s) re: 17.3.H.2:

We propose revisions to align with COGCC Rule 805.c. Fugitive Dust.
1. Best management practices for the mitigation of dust associated with on-site and traffic activities shall be employed at the facility.

2. Produced water and other process fluids shall not be used for dust suppression.

3. Safety Data Sheets (SDS) shall be provided with the application for any proposed chemical based dust suppressants.

4. Water only, unless otherwise approved by the County Health and Engineering Department, will be used for dust suppression activities within 300 feet of the ordinary high-water mark of any body of water.

See COGCC Rule 907.c.(2)D. ("Produced water may be disposed by road spreading on lease roads outside sensitive areas for produced waters with less than 3,500 mg/L TDS when authorized by the surface owner and in accordance with an approved waste management plan.

Road spreading of produced waters shall not impact waters of the state, shall not result in pooling or runoff, and the adjacent soils shall meet the concentration levels in Table 910-1. Flowback fluids shall not be used for dust suppression.").

See Whitepaper at p. 19 ("Staff proposes amending Rule 805.c. to require operators to develop a dust control plan. The plan would address each phase of oil and gas operations and propose site-specific BMPs to minimize and suppress dust.").
### Chemical Handling:

1. 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.”

2. Drilling and completion chemicals shall be removed from the site within sixty days of the drilling completion.

3. The following toxic chemicals shall not be utilized in the hydraulic fracturing fluid: (list excluded)

**Comment(s) re: 17.3.J.1.**: What county agency shall be provided this information?

**Comment(s) re: 17.3.J.2.**: We would request that there be an exemption process to the sixty-day limit if a longer period will mitigate other adverse impacts. The results of a completion may not be fully known for more than 60 days and the proposed rule may reduce the benefits of continuous pad-style operations. Complying with the 60-day limit may result in drilling and completion materials being transported to and from the same location multiple times and increase vehicle trips and handling.

**Comment(s) re: 17.3.J.3.**: We have significant concerns regarding the practical feasibility of “zero limits” for compounds that are naturally occurring constituents of crude oil and groundwater, such as benzene, lead, mercury, cadmium, and chromium. For example, benzene is a naturally occurring component of crude oil, and a zero limit would preclude lease oil fracking (i.e., the practice of using natural occurring, indigenous formation fluids as a frac medium, which reduces the fluid volume to frac because of the lower formation damage). And trace benzene can be present in groundwater due to releases during agricultural operations and from transportation fuels. Additionally, lead, mercury, arsenic, cadmium, and chromium are naturally occurring trace elements in groundwater, particularly non-potable ground water which is a preferred source of water for the use of hydraulic fracturing. We propose the use of standards set forth by the EPA for agricultural water.

### Recycle, Reuse and Disposal of Fluids:

1. Drilling, completion flowback and produced fluids shall be recycled, unless technically infeasible.

2. Exploration and production waste may be temporarily stored, not to exceed two weeks, in tanks while awaiting transport to licensed disposal or recycling sites.

3. Produced water shall be transported by pipeline unless Wellington Operating has been a pioneer in recycling and reuse of produced water in the State of Colorado and wishes to provide information to County staff regarding produced fluid management options, processes, and terminology to ensure the rules allow and promote effective treatment, disposal, recycling or beneficial reuse.

**Comment(s) re: 17.3.K.1.**: The term “recycled” is not currently defined by the proposed regulation. We propose revising to provide that “...fluids shall be recycled or reused, unless economically or technically infeasible.”

**Comment(s) re: 17.3.K.2.**: Two weeks is likely too brief a period provided.
| economically or technically infeasible. | potential winter weather conditions, limits on equipment availability, and potential mitigation of noise and dust impacts on seasonal habitats. We propose a revision to thirty (30) days and an exception process when transportation activities may adversely impact seasonal habitats.  

**Comment(s) re: 17.3.K.3.:** We propose a limit (such as 1000 barrels of water per day) above which pipeline transportation would require evaluation, but below which evaluating pipeline transportation in clearly impractical and evaluation unnecessary.  

We further suggest addressing situations where pipeline transport may not be possible, such as where easements are not reasonably available or where pipeline construction would be having significant adverse environmental impacts. |
We request further dialogue with the County to develop a definition of “water bodies” to include in this rule. The rules should specify water quality/resources and promote beneficial use of produced water. We believe this is an effective manner that allows oil and gas development. In some cases, injecting produced water is the environmentally preferred management option.

We propose for use (i.e., 50-year floodplain standard) should be more closely addressed by the COGCC through the adoption of a permitting program prior to finalization of the Special Review application. The applicability of the applicable floodplain standard should be defined.

If the County adopts a two-track approval process, Section 17.3.L.3 should be revised to reflect that BOCC hearings will not be required for applications subject to an administrative review process. Lastly, it would be recommended that the Flood Plain Review and Permit process be in parallel with the County and COGCC permitting process.

Comment(s) re: 17.3.L.4.:
The provision needs clarification as to what UIC Class wells will be prohibited from use for injection. Currently, UIC I, II, III – Injection Wells are regulated by the EPA (some Class II wells is prohibited for use for injection. Currently, UIC I, II, III – Injection Wells are regulated by the EPA. We propose that injection of produced water not be prohibited, but that reasonable monitoring practices be required for this activity to take place. We propose an exception for permitted surface discharge. COGCC
Rule 907.e.(2)E allows disposal into state waters and Wellington Operating owns, and has operated, a water treatment plant for the treatment of produced water and its surface discharge since 2005 under the authority of the COGCC with the consent of the Office of the State Engineer and Larimer County.

<table>
<thead>
<tr>
<th>M.</th>
<th>Visual</th>
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<tbody>
<tr>
<td>1.</td>
<td>The application shall demonstrate compliance with the visual and aesthetic rules of COGCC and the Larimer County regulations for landscaping, fencing and lighting for all phase of the development of the site.</td>
</tr>
<tr>
<td>2.</td>
<td>All oil and gas facilities shall be painted with colors that are matched to or slightly darker than the surrounding landscape, and shall utilized paint with uniform, noncontracting, nonreflective color tones based upon the Munsell Soil Color Coding System.</td>
</tr>
<tr>
<td>3.</td>
<td>The location of all outdoor lighting shall be designed to minimize off-site light spillage and glare.</td>
</tr>
<tr>
<td>4.</td>
<td>Fencing shall for all the phases of an Oil and Gas facility development to ensure the security and visual aesthetics of the use.</td>
</tr>
<tr>
<td>5.</td>
<td>Landscaping for screening and visual quality from off-site shall be required within 6 months from the time of well completion.</td>
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<tr>
<td>6.</td>
<td>Oil and Gas facility applications, including access roads serving the facility, shall demonstrate how compliance with weed control requirements of the County Weed District and Forestry Services Department will be met.</td>
</tr>
</tbody>
</table>

**Comment(s) re: 17.3.M.1.:** We suggest a more specific reference to the Larimer County and COGCC aesthetic rules for clarity. This category of concerns will be addressed by COGCC in the course of its Mission Change Rule Making. We encourage the County to maintain consistency with COGCC rules.

**Comment(s) re: 17.3.M.2.:** Language is duplicative of COGCC Rule 804. We propose alternative language that requires the facilities be painted in a manner that helps the facility “blend in” with the local, natural environment rather than “match” (i.e., clarify that standard color tan is acceptable).

**Comment(s) re: 17.3.M.4.:** We propose establishing minimum and maximum fencing heights and opacity in collaboration with emergency first responders and police, and after consideration of potentially hazardous conditions. Fencing does reduce access to oil and gas facilities and reduce visual impacts, but it can also inhibit evacuation and emergency response. Fence material expectations can become problematic as operators and regulators are often not aligned in their respective understanding and approach; therefore, it would be beneficial to establish permissible fence types and design for consistency.

**Comment(s) re: 17.3.M.5.:** Six months may be too short a time for vegetation to take root. Landscaping can be problematic when water is scarce, and the provision is not clear regarding the County’s expectations pertaining to landscaping. We propose a revision that would recognize the water scarcity concerns (i.e., landscaping which does not require operators to install a tanker and irrigation system), consideration of introduction of invasive species, and changes to habitat (e.g., planting trees in open grassland).

The proposed language is unclear regarding the type of screening, which is appropriate, or environmentally sound in an open landscape with few trees.
or large plants and limited water (e.g., we note that Adams County’s oil and gas regulations do not appear to require landscaping within six months of completion).

Well completion is not the final step in constructing a well production facility, and many facilities have more than one well. Instead of tying the deadline to well completion, we suggest a deadline of 6 months from the completion of construction activities within an approved Surface Use Area.

**Comment(s) re: 17.3.M.6.:** We have questions regarding the form of these applications but will wait for clarification of the process described.

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**N. Well Plugging and Abandonment:**

1. Well abandonment and reclamation shall comply with the COGCC rules and shall include the following:
   a. Removal of all equipment from the well site,
   b. Restoration of the site surface to the conditions of the site reclamation plan,
   c. Notice to the County LGD of the commencement and completion of such activity, and
   d. 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.

We request ongoing dialogue regarding the applicability of this regulation to existing wells, which do not require a Site Reclamation Plan. This category of concerns will be addressed by COGCC in the course of its Mission Change Rule Making. The AQCC will vote in December 2019 on a proposal to require BMPs for well plugging. We encourage the County to maintain consistency with COGCC and CDPHE rules.

**Comment(s) re: 17.3.N.1 a. and b.:**

Historically, the COGCC has allowed assignment of well bores to landowners for the purpose of re-permitting as groundwater wells. The new regulations should not prohibit this practice.

See [Whitepaper](#), available as provided in Appendix A.

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**O. Flammable Material:**

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

**Comment(s) re: 17.3.O.2:**

The regulation, as proposed, may increase the disturbed ground around some wellheads. Clarify the applicability of the rule; the term “anything flammable” is very broad and would include native vegetation. Compliance would require stripping the ground within the buffer area, which would conflict with 17.3.H Dust

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**P. Waste Disposal:**

1. Oil and gas facilities shall remain free of debris and excess

**Comment(s) re: 17.3.P.1:** Excess materials is an undefined term.

**Comment(s) re: 17.3.P.2:** The prohibition on burning “other flammable
<table>
<thead>
<tr>
<th>Q. Removal of Equipment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There shall be no permanent storage of equipment on the site of an oil and gas facility.</td>
</tr>
<tr>
<td>2. When not in use, or no longer needed for on-site operations all equipment not being used on the site shall be removed.</td>
</tr>
</tbody>
</table>

**Comment(s) re: 17.3.Q.1.:** Storage is by definition a temporary activity. As is common in the agricultural industry, it is similarly a common oilfield practice to store equipment for well maintenance, such as tubing, casing, spare pumps, etc., within a field area. This practice reduces heavy truck traffic, and related emissions and dust, and facilitates timely repairs. Consequently, the provision appears in conflict with § 17.3 B 7.a. and b. (regarding the reduction of vehicle traffic for dust control) and § 17.3 C Leak Detection and Repair.

We propose revision of this provision to permit equipment storage with appropriate installation of screening, if necessary, to mitigate aesthetic impacts from public rights-of-way or if requested by landowner.

**Comment(s) re: 17.3.Q.2.:** Wellington Operating has acquired 35 acres of fee land specifically for locating its facilities, including storage of equipment. The rules should not inadvertently prohibit or restrict a specific land use of land owned in fee.

<table>
<thead>
<tr>
<th>R. Maintenance of Machinery:</th>
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<tbody>
<tr>
<td>1. There shall be no maintenance of field equipment involving hazardous material within 300 feet of a water body.</td>
</tr>
<tr>
<td>2. Any fueling on-site shall occur over an impervious surface and shall not occur during storm events.</td>
</tr>
</tbody>
</table>

**Comment(s) re: 17.3.R.1.:** Field equipment is a vague and undefined term. As written, field equipment could be interpreted as including artificial lift systems, and this proposed regulation effectively bans using artificial lift systems within 300 feet of a water body.

The term “water body” is not defined, nor is the reference point for the 300’ measurement.

**Comment(s) re: 17.3.R.2.:** Many jurisdictions require on-site fueling areas to be bermmed and a collection sump in the event of a spill.

<table>
<thead>
<tr>
<th>S. Flow Lines, Transfer Lines and Gathering Lines:</th>
</tr>
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<tbody>
<tr>
<td>1. All off-site lines transporting process materials, production wastes,</td>
</tr>
</tbody>
</table>

The regulations should encourage the use of pipelines where appropriate and economically feasible because they have safety and environmental benefits.

*See COGCC Form 44.*

*See Flowline Rulemaking,* information for
### 17.3.R.1.

This section may unduly restrict pipeline access because of ambiguity in the terms avoid, places of assembly, surface waterbodies and designated open spaces. Difficulties identifying proposed development may also restrict pipeline access and lead to disputes. The County may consider the effect of the federal Pipeline and Hazardous Materials Safety Administration’s (PHMSA) pipeline safety regulations.

**Comment(s) re: 17.3.R.1.:**

This section may unduly restrict pipeline access because of ambiguity in the terms avoid, places of assembly, surface waterbodies and designated open spaces. Difficulties identifying proposed development may also restrict pipeline access and lead to disputes. The County may consider the effect of the federal Pipeline and Hazardous Materials Safety Administration’s (PHMSA) pipeline safety regulations.

**Comment(s) re: 17.3.R.2.:**

The rules should provide a clear evaluation process and a path to timely approval of safe and responsible development projects. We request ongoing dialogue to clarify the intent and standards for this rule.

### T. Temporary Water Lines

1. Temporary waterlines shall be used, unless technically infeasible.
2. Temporary waterlines shall be buried at all existing driveway and road crossing, or utilize existing culverts, if available.

We propose revising § 17.3.T.1., as follows: “Temporary watertines shall be used, unless **economically impractical**, technically infeasible, or where access is otherwise unavailable.”

### U. Financial Assurance

1. The Applicant must demonstrate the financial capability to reclaim all disturbed areas during each phase of the site development and following termination of the oil and gas operation on the site.
2. The Applicant must, for the life of the use, carry environmental liability insurance for all potential pollution events.

This category of concerns will be addressed by COGCC in the course of its Financial Assurances Rule Making in the Fall of 2020. We encourage the County to maintain consistency with COGCC rules.

**Comment(s) re: 17.3.U.2.:**

The phrase “potential pollution events” is ambiguous. We propose revising § 17.3.U.2. such that the “Applicant must, for the life of the use, carry customary and usual environmental liability insurance.”

### 17.4 Guidelines for Oil and Gas Developments

A. Applications for oil and gas facilities are strongly encouraged to incorporate the following guidelines (best management practices).

We support the use of BMPs and performance standards instead of prescriptive technological solutions that may be inappropriate in given situations.
Where reasonably necessary, the County may require some or all of the following guidelines depending on the location and characteristics of the proposed facility.

1. To mitigate the adverse impacts of air emissions generated by oil and gas facilities, Applicants are encouraged to: (list excluded)

2. To mitigate the adverse impacts of odor generated by oil and gas facilities, Applicants are encouraged to: (list excluded)

3. To mitigate the impacts of multiple pipeline corridors, Applicants are encouraged to consolidate and share pipeline easements and corridors, unless it is technically infeasible.

circumstances. Best practices to minimize environmental impacts vary depending on site conditions. If the County imposes specific requirements, it should do so at the time of permit issuance. The following implementation issues demonstrate the advantages of requiring BMPs rather than mandating specific practices:

Comment(s) re: 17.4.A.1.a.: Tankless production is not possible in all situations. It may not be economic for low-production facilities or facilities located away from dense development and pipeline infrastructure. At these facilities the environmental impacts of pipeline construction must be weighed against the benefits of tankless production. There is not a standard definition of “tankless production techniques” and nearly all facilities require some tanks for upset conditions or maintenance.

Comment(s) re: 17.4.A.1.b.: Zero emission dehydration is prohibitively costly and may require use of environmentally hazardous chemicals

Comment(s) re: 17.4.A.1.d.: The AQCC currently regulates pneumatic devices and is likely to consider additional regulations in 2020-2021.

Comment(s) re: 17.4.A.1.e.: The AQCC will vote on automatic tank gauging regulations in December 2019.

Comment(s) re: 17.4.A.1.f.: Must be allowed to flare to comply with applicable regulations.

Comment(s) re: 17.4.A.1.g.: How will “agreed upon by community and industry work”

Comment(s) re: 17.4.A.3.: We propose revising the language to state that “…Applicants are encouraged to consolidate and share pipeline easements and corridors, unless economically or technically infeasible.”

17.5 Application Requirements

A. In addition to the submittal requirements necessary to demonstrate compliance with the applicable Sections of the Land Use Code, applications for oil and gas facilities shall also include, when relevant, the following: (list excluded)

How does the County envision coordination between the various agencies to standardize forms?

17.6 Appeals
### 17.7 Enforcement and Inspection

| A. | Appeals should be limited to interested or aggrieved parties (Larimer County Code § 22 allows third parties to intervene without an interest and potentially use the appeals process to unreasonably delay permits). Currently, § 22 of the Larimer County Code has no such limitation on standing and instead permit “[a] person [that] asserts that there is an error in any order, requirement, decision or refusal made by an administrative officer or agency in the administration or enforcement of the provisions of this code (administrative decisions)” may bring an appeal. Larimer County Code § 22.2.1.A.1. Emphasis added. There are no further requirements imposed on the appellant to demonstrate injury or threat of injury or harm in order to bring the appeal. |
| B. |  |

**Comment(s) re: 17.7.A.:** The enforcement penalties are duplicative and potentially put operators at risk of double exposure based on state enforcement penalties.

**Comment(s) re: 17.7.B.:** Will the County impart notice prior to an inspection?

### 17.8 Enforcement and Inspection

| A. | The following fees are applicable to oil and gas facilities. |
|    | a. TBD |
| B. | An impact fee will be assessed as follows: |
|    | a. Capital Transportation Impact Fees |
| C. | Each application shall include financial security for the purpose of ensuring maintenance and reclamation may be accomplished if the applicant is unable or unwilling to perform its obligations. |

We request ongoing dialogue to clarify the fee requirements and under what conditions such fees will be levied.
<table>
<thead>
<tr>
<th>17.9</th>
<th><strong>Termination of Use or Modification</strong></th>
<th>The proposed regulations do not contain information regarding how long the Special Review Approval will be valid once issued.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>No modification to an approved oil and gas facility shall be made without obtaining appropriate land use approval from the county.</td>
<td><strong>Comment(s) re: 17.9.A.:</strong> We propose inclusion of a materiality standard and requests ongoing dialogue regarding the standards and process for approval of modifications.</td>
</tr>
<tr>
<td>B.</td>
<td>Upon termination of use, the oil and gas facility must be reclaimed pursuant to the reclamation plan provided.</td>
<td><strong>Comment(s) re: 17.9.B.:</strong> The COGCC reclamation rules address soils, contouring, revegetation, weed control, equipment removal, and release of financial assurance. We recommend maintaining consistency with COGCC regulations to avoid conflicting or duplicative requirements.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>17.10</th>
<th><strong>Definitions</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Unless otherwise listed herein, the definitions found within the Colorado Revised Statutes and COGCC regulations shall control.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix A to King and Wellington’s Comments on Larimer County’s Draft (Version 1) Oil and Gas Regulations

1. **Section 17.1.A.**

   The purpose of the oil and gas facility regulation is to allow for reasonable development of oil and gas while ensuring that facilities are sited in appropriate areas and utilize best practices to protect the health, safety, and welfare of our residents and the environment and wildlife.

   Adams County Code § 2-02-14-01.

   This Section is enacted to protect and promote the health, safety, values, convenience, order, prosperity and general welfare of the current and future residents of the County. It is the County’s intent by enacting this Section to facilitate the development of oil and gas resources within the unincorporated area of the County while avoiding or mitigating potential land use conflicts between such development and existing, as well as planned, land uses. It is recognized that under state law the surface and mineral estates are separate and distinct interests in land and that one may be severed from the other. Owners of subsurface mineral interests have certain legal rights and privileges, including the right to use that part of the surface estate reasonably required to extract and develop their subsurface mineral interests from a consenting surface owner, subject to compliance with the provisions of this Section and any other applicable statutory and regulatory requirements. Similarly, owners of the surface estate have certain legal rights and privileges, including the right to have the mineral estate developed in a reasonable manner and to have adverse impacts upon their property, associated with the development of the mineral estate, avoided or mitigated through compliance with this Section.

   Adams County Code § 4-10-02-03-03-01


3. **COGCC 100 Series Rules**

   SPILL shall mean any unauthorized sudden discharge of E&P waste to the environment.

   EXPLORATION AND PRODUCTION WASTE (E&P WASTE) shall mean those wastes associated with operations to locate or remove oil or gas from the ground or to remove impurities from such substances and which are uniquely associated with and intrinsic to oil and gas exploration, development, or production operations that are exempt from regulation under Subtitle C of the Resource Conservation and Recovery Act (RCRA), 42 USC Sections 6921, et seq. For natural gas, primary field operations include those production-related activities at or near the wellhead and at the gas plant (regardless of whether or not the gas plant is at or near the wellhead), but prior to transport of the natural gas from the gas plant to market.

   In addition, uniquely associated wastes derived from the production stream along the gas plant feeder pipelines are considered E&P wastes, even if a change of custody in the natural gas has occurred between the wellhead and the gas plant. In addition, wastes uniquely associated with the operations to recover natural gas from underground storage fields are considered to be E&P waste.
4. COGCC Mission Change Whitepaper, dated November 1, 2019, available here: http://cogcc.state.co.us/documents/sb19181/RulemaWe/Mission%20Change/Mission_Change_RulemaWe_Whitepaper_20191101.pdf

5. Adams County Development Standards and Regulations 4-10-02-03-03-03


a. Operator shall submit a visual mitigation plan in compliance with COGCC Rules, including but not limited to, a list of the proposed colors for the Facilities, regardless of construction date, which are observable from any public highway, providing for paint that is uniform, noncontrasting, nonreflective color tones (similar to the Munsell Soil Color Coding System), and with colors matched to but slightly darker than the surrounding landscape, a listing of the operations’ equipment, proposed fencing, and screening. Plan shall indicate the location of all outdoor lighting on the site and any structures and include cut sheets of all proposed fixtures. Fencing shall be required around all well site equipment, including, but not limited to, storage tanks, well heads, and meters if the well site is visible from a subdivision west of Imboden Road. Such fencing shall screen equipment, provide safety precautions, and be compatible with the surrounding environment. Should fencing apply to a well site, the design and construction of such fencing shall be approved by the Community and Economic Development Department prior to the construction of any site. If a chain link fence is required to achieve safety requirements set by the COGCC, then landscaping and other screening mechanisms shall be required that comply with the County’s Development Standards and Regulations and the Operator’s safety requirements. Operator shall be responsible for obtaining consent by surface owner allowing any required fencing.

b. Operator shall submit landscaping and berming plan that includes maintenance and irrigation requirements for planted vegetation throughout the duration of operations, including production. Operator shall be required to provide maintenance funding through bonding to ensure funds are available for upkeep. Weed control is required at the facility and along access roads until final reclamation and abandonment. Required sound walls shall be included in the visual mitigation plan and shall comply with the color scheme approved by the County, blending with natural background. All landscaping shall be in compliance with County requirements and in compliance with the safety requirements of the Operator. Existing vegetation shall be minimally impacted. Motorized equipment shall be restricted to the well sites and access roads to the well sites. Operator is responsible for obtaining consent by surface owner allowing landscaping as well as automatic irrigation for landscaping in urban mitigation areas and/or parks/recreation areas. All plant materials shall be kept in a healthy growing condition at all times.

c. Operator shall submit lighting mitigation plan for all phases of development and operation, which adheres to best management practices to minimize light escaping the facility including making all lighting downward-facing and fully shielding bulbs to prevent light emissions above a horizontal plane drawn from the bottom of the fixture. Operator shall conduct a photometric study prior to start of construction to indicate impact on surrounding properties and measure the lumens emitted from the facility outside of the walls.

d. Site access and security. Site shall be properly secured, including, but not limited to, security fencing or barriers to prevent unauthorized access to site. Site shall be properly secured prior to the start of drilling. Proposed fencing, barriers, and screening shall be included in the visual mitigation plan.
6. **COGCC Flowline Rulemaking** information for which is available here:

- [http://cogcc.state.co.us/documents/media/Press_Release_Flowline_Rulemaking_November_Commission_Announcement_20191121.pdf](http://cogcc.state.co.us/documents/media/Press_Release_Flowline_Rulemaking_November_Commission_Announcement_20191121.pdf)
- [http://cogcc.state.co.us/sb19181_calendar.html#rulemaking_flowline](http://cogcc.state.co.us/sb19181_calendar.html#rulemaking_flowline)
League of Oil and Gas Impacted Coloradoans (LOGIC) and Larimer Alliance for Health, Safety & the Environment
RE: Larimer County Draft “Oil And Gas Facilities” Proposed Regulations to the Larimer County Land Use Code

Dear Commissioners Johnson, Donnelly and Kefalas, and Mr. Lafferty, Mr. Gonzales, and Ms. Ellis,

The League of Oil and Gas Impacted Coloradans (LOGIC) and groups aligned under the Larimer Alliance for Health, Safety and the Environment (Larimer Alliance) appreciates the opportunity to submit the following comments regarding Larimer County’s draft regulations for Oil and Gas Facilities.

These comments reference the Larimer County draft “Oil and Gas Facilities Regulations” in Section 17.0 of the Larimer County Land Use Code. Oil and gas development, both generational and especially new “unconventional” drilling and exploration, pose significant risks and impacts to local communities – to public health, safety, welfare, and the environment of Larimer County.

SB19-181 became law on April 16, 2019. It equips local governments with a new spectrum of tools, rights, and responsibilities regarding oil and gas. In mid-2019 the Larimer Alliance formed and respectfully requested that Larimer County take the time to fully develop local regulations to protect public health, safety, welfare, the environment and wildlife resources. While the Colorado Oil and Gas Conservation Commission (COGCC) is working to develop the new framework and rules to implement SB19-181, we have consistently advocated that our County also commit to putting health, safety, and our environment first.

We began by urging the County to enact a moratorium on new oil and gas development and permits until state government announced new rules. We also encouraged Larimer County to closely review the regulatory frameworks of other Front Range jurisdictions such as Adams County, Commerce City, Erie, or Broomfield, with an eye toward best ideas to protect public health, safety, welfare and the environment.

Under the new law, local governments are explicitly spared from state preemption in their land use authority and may establish regulations that afford more protection than those of the state regarding public health, safety, welfare, the environment and wildlife. As such, local jurisdictions have wide discretion to approve, condition or deny permit applications and to regulate oil and gas operations in a reasonable manner to protect and minimize adverse impacts.
to public health, safety, and welfare, the environment, and wildlife resources and to protect against adverse environmental impacts resulting from oil and gas operations. Also very important, SB19-181 directs that no longer is “cost-effectiveness and technical feasibility” to be applied when regulating oil and gas operations. We strongly recommend Larimer County to eliminate loophole language such as “to the maximum extent practicable” and “where feasible”, and replace the term “encourage” with “require” compliance with regulations.

Without a moratorium thus far, now we move to our specific comments on the County’s recently released draft regulations.

To begin, we seek that Larimer County develop and adopt regulatory language that clearly protects public health, safety, welfare, the environment, and wildlife resources. This includes:

- A clearly asserted right to deny, condition or approve permits to protect and to minimize adverse impacts to public health, safety, and welfare, the environment, and wildlife resources, and to protect against adverse environmental impacts resulting from oil and gas operations.
- A comprehensive and transparent public process regarding consideration of new oil and gas development.
- A series of protective and thorough standards for applications for new oil and gas development that include at least a minimum 2,000 foot setback from homes, high occupancy building areas (such as hospitals and schools) and from water sources.
- High standards for all oil and gas operations within Larimer County that thoroughly protect public health, safety, and welfare, the environment, and wildlife resources, and minimize and mitigate the extent and severity of those impacts that cannot be avoided. This begins with expanding requirements regarding air quality, water, odor, noise and vibrations, truck traffic, chemical use, waste management, and financial security for County residents, property owners, taxpayers, and local governments.

With this in mind, LOGIC recommends the following, regarding the Larimer County proposed “Oil and Gas Facilities” Draft language to the Larimer County Land Use Code.

**Section 17.1 -- Intent and Purpose**

Section 17.1 of the “Oil and Gas Facilities” section of Larimer County Land Use Code states that:

“The Intent and purpose of this section is to establish and administer necessary and reasonable regulations for oil and gas drilling and production in a manner that protects and promotes the health, safety, and general welfare of the residents and environment of the County. To the extent practicable these regulations will require applications for oil and gas operations to demonstrate how adverse impacts will be mitigated to achieve a minimal negative impact on the environment, wildlife and residents of the County.”
SB19-181 expressly removes clauses of preemption and in fact empowers local governments to create and implement regulations that protect public health, safety, welfare, environment and wildlife resources. LOGIC, Larimer Alliance and associated community groups request that Larimer County do the following:

- incorporate clear language regarding the intent of the County’s oil and gas regulations;
- eliminate the use of phrases here and throughout the regulations that allow loopholes with regard to protection of public health, safety, and the environment;
- and clearly assert its right to reject or deny and/or to condition any and all permit applications in a manner that prevents adverse impacts to public health, safety, welfare, and the environment.

**Section 17.2 -- Required Process and Permits**

Section 17.2 begins by referring all oil and gas permitting Larimer County Code of Ordinances 4.5: Special Review and Minor Special Review with “Supplemental Review” criteria. Current development of oil and gas using unconventional hydraulic fracturing methods poses significant immediate impacts and nuisances to surrounding neighborhoods; community assets such as shopping centers, schools, and playgrounds; and to local infrastructure such as roads and electrical grids.

We find that the minimalist “Special Review and Minor Special Review requirements”, as well as the “Supplemental Review” criteria in 17.2.B neglect to include public notice or process regarding new oil and gas proposals. Also, they are void of an array of materials required by a number of other Colorado county governments that would allow the County to fully review and vet an oil and gas site proposal to protect public health, safety, welfare, the environment, and wildlife resources in a manner consistent with SB19-181.

We recommend, at minimum:

- The development of specific land use provisions to clearly establish standards for a proposed new oil and gas site to include a minimum 2,000 foot setback from homes, high occupancy buildings (such as hospitals and schools), residential areas, flood plains, air inversion areas, and water sources. This would include use of COGCC maps of underground structure.
- The development of a land use process and special use review process that is entirely specific to new and existing oil and gas development and infrastructure.
- The development of a public process for each new oil and gas facility that includes:
  - At least 60 days-notice of the permit application to all residents, landowners, and parents of school children attending a school within 1 mile of a proposed oil and gas site;
o Public disclosure of all required documents submitted to the County by the Operator;

o An independent environmental, financial, and risk analysis to be prepared and presented to the County;

o A public neighborhood meeting, no less than 30 days prior to a hearing, to be presented by the operator and administered by the county;

o A public hearing at the County Planning Commission;

o And finally, a public hearing and vote by the Larimer County Commissioners.

- A detailed process for the submission of required materials by the operator to the county; acceptance and acknowledgement of the required materials by the County; and detailed policy directing a process for evaluation that leads to a public accountability process.

- An affirmation of the right to deny, reject or to condition all proposed oil and gas projects within the County.

We finally recommend, in this section, (17.2.B) that a detailed list of required application materials, (as described in Section 17.5) be moved to Section 17.2.C. Also, this section should clearly define the required planning documentation. This documentation should ensure that the operator has a sense of the County’s standards regarding protection of public health, safety, the environment and wildlife resources. We suggest that the following documentation with the following definitions be included:

**Section 17.3 -- Standards Required for All Oil and Gas Facilities**

Whereas Section 17.3 outlines the County’s standards for oil and gas facilities, in keeping with the format proposed by the County, we offer the following changes and additions to the currently proposed County regulations:

- **General**: Paragraph 17.3.A.2 – we request this sentence be amended to include “agricultural operations, residential communities, schools, roadways and other infrastructure, surface water, wetlands, and natural areas.” and that a minimum 2,000 foot setback from all residential or high occupancy buildings, outdoor parks and rec, water bodies, and other environmentally sensitive areas be required.

- **Air Quality**: Southern Larimer County is in Colorado’s 8-hour ozone non-attainment area. Oil and gas development is a top contributor of greenhouse gas emissions. Larimer County residents deserve innovative local regulatory measures that prioritize their public health, and the development of stringent air quality monitoring programs are one of the paramount ways to protect public health and safety.

  - Changes to the current draft regulations:
Sections 17.3.B.1-3 describe that the County is requiring compliance with COGCC, CDPHE, AQCC, and EPA air quality emissions standards. In order to protect public health, we ask that the county require certification of this compliance from operators.

INSTAAR continuous monitoring equipment be installed by the county at operator expense, with live monitoring available online.

Provision 17.3.B.3 allows non-compliance with basic EPA Reduced Emission Completions for completions and workovers, however allows for exceptions when this is economically infeasible or impracticable. Whereas, unmonitored, completed oil and gas sites have a tendency to leak, therefore we request that the County first eliminate the “feasibility and practicability” loopholes and simply require that operators comply with this basic EPA Reduced Emissions Standard.

We seek the removal of loophole language in Section 17.3.B.4 regarding “economic feasibility and practicability” with regard to closed loop, pitless drilling, completions systems without permanent on-site storage tanks.” Such provisions, as well as the prohibition of the use of flares, should be required practices within the County for the protection of Larimer County’s air quality and public health.

The use of electric drill rigs, engines, and production equipment (Section 17.3.B.4-5) is a standard requirement in at least half a dozen local jurisdictions across the Front Range. We seek that Larimer County follow this standard and require the use of electric drill rigs and production equipment and eliminate the use of all loophole (“economically feasible and practical”) language.

While the intention of provision 17.3.B.6 to ensure compliance with State Regulations regarding motors, engines, and other equipment is helpful, the inclusion of “exploration” regarding oil and gas development ambiguously opens the door to consideration of exploratory drilling permits within Larimer County, and while this code is intended to address oil and gas permitting, the inclusion of exploratory drilling permitting in Larimer County should be treated as entirely separate, if allowed at all.

The requirements regarding air quality action days in Section 17.3.B.7 are thorough. However, we ask that delivery of a report of these air pollution reduction measures be presented to the county within 30 days following the air pollution reduction day OR if air pollution action days occur in succession, within 30 days of the conclusion of the succession of air pollution action days.
Additions: While the provisions in the Air Quality section of the County’s draft regulations are a start, we strongly encourage that the County take seriously the charge of protecting public health, safety, and the environment when it regards oil and gas. Stringent provisions and regulations around air quality at oil and gas sites is foundational to protecting public health and safety. We recommend that the County incorporate further detail and provisions in its code regarding Air Quality and oil and gas as such:

- We ask that the County begin the section (17.3.B.) asserting the intention that “New Oil and Gas Operations shall not degrade air quality and shall prevent adverse impacts to public health, safety, and welfare and the environment and provide evidence of such compliance in the provisions that follow.”

- In Section 17.3.B.1, we request that the County further spell out the compliance with EPA, CDPHE, and COHCC standards regarding air emissions, and take steps further to comply with the 2017 CDC Agency for Toxic Substances and Disease Registry and US EPA Integrated Risk Information System ambient Air quality guidelines. Additionally add compliance with all OSHA work practice requirements regarding benzene exposure.

- Flaring shall be prohibited other than during emergencies or upset conditions, and all flaring shall be reported to the County. If flaring is required, all flares, thermal oxidizers, or combustion devices shall be designed and operated to the manufacturer specification of 98% destruction removal efficiency or better.

- Use of open pits shall be prohibited.

- The County should conduct onsite baseline air quality monitoring ahead of all oil and gas permitting considerations, and should require annual Leak Detection and Repair inspections. The results of these inspections and annual onsite air quality monitoring should be reported to the County.

- For Operators with existing oil and gas operations within Larimer County, demonstrate that the Operation will not result in any increase of volatile organic compounds (VOCs) from Operator’s existing and planned Operations in the County.

- The County requires in Section 17.B that operators “demonstrate hydrocarbon destruction and control efficiency by using an enclosed combustion device that complies with a design destruction efficiency of 98% or better”.

- Implement best management practices during liquids unloading (i.e. maintenance activities to remove liquids from existing wells that are
inhibiting production) including at least 95% emissions reductions when utilizing combustion and installation of artificial lift or unloading through the separator where feasible.

- Implement “tankless” production techniques.
- Obtain electrification from the power grid or from renewable sources for all equipment that can be electrified.
- Install, calibrate, operate, and maintain any flare, auto ignition system, recorder, vapor recovery device or other equipment used to meet hydrocarbon destruction or control efficiency requirement in accordance with the manufacturer’s recommendations, instructions, and operating manuals.
- Use of telemetric control and monitoring systems, including surveillance monitors to detect when pilot lights or control devices are extinguished.
- Reduction of emissions from oil and gas maintenance activities such as pigging or blowdowns.
- Require 48-hours notice of any maintenance or emergency condition requiring venting.
- Centralize compression facilities within a well site.
- All venting of exhaust should be done in an upward direction or away from any occupied structure closest to such equipment.
- Establishment of shutdown protocols, approved by the County, with notification and inspection provisions to ensure safe shut-down and timely notification to resident, neighborhoods, and parents of school children within one mile.
- Conduct ongoing maintenance checks of all equipment to minimize the potential for gaseous or liquid leaks.
- Minimize truck traffic to and from the site.
- Hydrocarbon control of 98% or better for crude oil, condensate, and produced water tanks with uncontrolled actual emissions of VOCs greater than two TPY VOCs.
- Use of no-bleed continuous and intermittent pneumatic devices.
- Consolidation of compression facilities within a well pad site.
- A full root cause analysis of any Grade 1 gas leaks.
- Use of other best management practices to control emissions as they become available.

- **Leak Detection and Repair**
  
  - Section 17.3.D is a standard start to Leak Detection and Repair Requirements; however, we strongly recommend that provision 17.3.D.4 require that all leaks be repaired, with an expedient timeline for repair and inspection of that repair reported to the county.
  
  - Further, given that leaks and spills at oil and gas sites pose a threat to public health, safety and the environment, not just those that pose an “imminent hazard to persons, property, wildlife or the environment,” the County should exercise its right to require that any oil and gas well with an identified leak shall be shut down and not allowed to operate until the operator has provided evidence that the leak has been repaired if an immediate timeline for repair is not identified by the operator.
  
  - Additions: It is incumbent on Larimer County to ensure that the public’s right to know about leaks and spills is being met. Leaks at oil and gas sites pose a risk to public health and safety. We ask that the County add to Section 17.3.D an additional bullet regarding public notification, and make information regarding all leaks and spills at oil and gas sites available to the public.

- **Spills and Releases:** To protect public health and safety, Larimer County must take further steps and institute further requirements of oil and gas operators regarding spills, response and reporting to Section 17.3.D.
  
  - Changes to what is proposed: Within Section 17.3.D.1, we seek details regarding how this information will be noticed appropriately to emergency response and nearby residents as well as to parents of school children attending schools within one mile. We further recommend that this section include a place within the County website, where information regarding spills and releases be made publicly available.
  
  - Additions: We recommend that Section 17.3.D be fleshed out further to include:
    
    - A provision that any operator in Larimer County demonstrate the ability to control and contain and repair all spills and releases of exploration and production waste.
    
    - Publicly available records of spills and releases that further detail timelines, exposure, and any findings from subsequent investigations of a spill.
    
    - A requirement that the Form 19 Spill Release Report (required by the COGCC) and the Form 23 Loss of Well Control Report be filed with the LGD and made available to the public when it is submitted to the LGD.
Further, the Operator shall provide a topographical map showing the location of the spill, any measures regarding immediate mitigation, site investigation and remediation that follow these forms.

- Spills and releases that breach containment measures exceeding one barrel of Exploration and Production Waste or produced fluids shall be reported to the Local Government Designee (LGD) and made publicly available within 24 hours.

- Spills and releases impacting or threatening any waters of the state, residences or occupied structures, livestock, or public byways shall be verbally reported to the LGD within 24 hours, with a written follow-up notice within 48 hours. Documentation of this reporting shall be provided to the public.

- Spills and releases of any size which impact or threaten to impact any water supply area shall be reported to the Colorado Environmental Spill Reporting Hotline at 1-877-518-5608 and to the LGD immediately upon discovery. The LGD shall make appropriate notifications to emergency response and water management teams and systems, and within 24 hours shall make this information available to the public.

- Operator will submit copies of all reports required by state and federal agencies to the LGD, who will make these available to the public.

- Operator shall use steel rimmed berms to surround the project with a capacity of 150% of the largest on site temporary storage tank.

**Noise**

- Throughout 17.3.F, we seek that the County amend its language regarding baseline noise testing distances and ongoing noise mitigation to:
  - Baseline testing of noise levels at 350, 500, and 1,000 feet from any oil and gas site to the nearest property line in Section 17.3.F.1
  - In Section 17.3.F.4, we seek that the language be amended to test decibel levels intermittently at each phase throughout active drilling and completion at 350, 500, and 1,000 feet from any oil and gas site to the nearest property line.

- Whereas, increasing evidence suggests detrimental impacts to public health regarding significant changes to ambient noise, we ask that Section 17.3.F.5 be adjusted as follows:
  - Noise levels should be measured per COGCC Rule 802 b & c, except no measurements shall be taken when traffic is passing the sound meter.
- For db(C) scale noise, Operator will comply with the requirements of COGCC Rule 802.
- Continuous monitoring from four sides of the facility, set at 350, 500, and 1,000 feet from the sound wall shall be required, within residential/agricultural/rural and commercial zoned areas.
- Residential/Agricultural/Rural and Commercial Zoned areas should NOT be subject to “Industrial” scale noise requirements during the construction or completion phases of oil and gas facilities/installation or pipeline construction. Instead, we offer further provisions below regarding noise mitigation requirements.
  - Detailed noise mitigation is an imperative component in the development of oil and gas regulations that are truly intended to protect public health, safety, welfare, the environment, and wildlife resources. We offer the following additions for consideration within the “Noise” requirements section (17.3.F) to minimize and mitigate impacts to public health and safety:
    - Use of sound controlled drilling and fracking equipment, including quiet fleets that reduce the noise of the pumps and motors associated with hydraulic fracturing.
    - Noise modeling for each well site during all phases of operation, including pre-construction noise modeling that shall be conducted by a third party consultant hired by the County in all areas zoned Residential/Agricultural/Rural and Commercial. Results of modeling shall be submitted to the County and made publicly available.
    - In Residential/Agricultural/Rural and Commercially zoned areas, no well shall be drilled, re-drilled, or equipment operated in a manner so as to create noise which causes exterior noise levels that exceed the ambient noise level by more than (5) five decibels during daytime hours and more than three (3) decibels during nighttime hours.
    - Exceed the ambient noise level by more than ten (10) decibels over the daytime average ambient noise level during fracturing operations during daytime hours. No fracturing shall be allowed during nighttime hours except for flowback operations related to fracturing.
    - Exceed the ambient noise level by more than three (3) decibels during flowback operations during nighttime hours.
    - Creates pure tones where one-third octave band sound-pressure level in the band with the tone exceeds the arithmetic average of
the sound pressure levels of two contiguous one-third octave bands by five (5) dB for center frequencies of 500 Hertz and above, and by eight (8) dB for center frequencies less than or equal to 125 Hertz or

- Creates low-frequency outdoor noise levels that exceed dB levels:
  - 16 Hz Octave band 65 dB
  - 31.5 Hz Octave band 65 dB
  - 64 Hz Octave band 65 dB

- The Operator shall establish and report to the LGD a continuous 72 hour pre-drilling ambient noise level prior to the issuance of a permit. The 72-hour time span shall include at least one 24-hour reading during a weekend. The Operator shall use the prior established ambient noise level for the installation of any new noise generation equipment unless the Operator can demonstrate that the increase in the ambient noise level is not associated with drilling and production activities located either on-site or off-site.

  - All workover operations should be restricted to daytime hours only.
  - The exterior noise level generated by drilling, redrilling, and other operations of all wells located within 500 feet of a Residential/Agricultural/Rural or Commercial zoned area shall be continuously monitored for compliance. The cost of monitoring shall be borne by the Operator.
  - The County shall create a complaint line for the purposes of health and nuisance complaints. All noise complaints shall, within 24-hours of a noise complaint, necessitate communications with the operator and the LGD, under which noise sampling shall be conducted, and if the noise level is outside of county-required decibel levels for specific zoning uses, the operator shall address and immediately mitigate the issue. The Operator then will be charged with reporting on any and all mitigation measures to the County. When notice is given that the issue has been mitigated, noise sampling shall be conducted once more by a third-party testing entity (agreed to by the County) 24 hours later to ensure that the issue has truly been mitigated and addressed.

- **Vibration:** The new regulation fails to address vibration caused by oil and gas activities and development. Whereas, such activity has a significant impact to local residents, and can cause issues with building infrastructure such as residential plumbing and foundations, we seek that the county develop regulations regarding vibration when it comes to oil and gas activity. At the very least, we seek that with regard to vibration:
  - The County require instrumentation and reporting of all vibration within 500 feet for existing oil and gas wells and 2,000 feet for all new oil and
gas development from an abutting residential or commercial development that measures the intensity and seismic impact of all vibration. These readings should further be made publicly available.

- We ask that Larimer County restrict the intensity of all vibrations within 2,000 feet of residential and commercial areas, as well as within 2,000 feet of all Larimer County water sources.
- We seek that all seismic events that measure above 1.0 on the Richter scale be immediately reported to the County and to the COGCC. If vibrations exceed 2.0 on the Richter scale, the County may stop operations immediately until the operator satisfies the County in taking actions to mitigate the work.

- **Odors:** Exposure to odors from oil and gas development is an initial sign of chemical exposure, and may have acute impacts to public health. The County draft regulations regarding odor allow for potential unmitigated exposure and risk public health. We offer the following additions:
  - The County shall create a public comment portal, that will also be filed with the COGCC, where the county will also file complaints.
  - The County shall notify the Operator no less than 24 hours after receiving an odor complaint.
  - County Health Department workers shall conduct an evening and morning odor inspection at 350 ft, 500 ft, 1,000 ft, and 2,000 ft from the oil and gas site. Further, the County will account for wind speed and direction and make further inspections based on air stream conditions.
  - For existing oil and gas sites, no emission of odorous gases or other odorous matter shall be permitted in quantities readily detectable in residential or commercially zoned areas.
  - Gibson D-822 is prohibited, in the comments section on the Form 2A, LGD shall request the disclosure of water based, low odor fluids.
  - All oil and gas sites are required to utilize filtration systems to minimize odors, however, use of odor-masking chemicals or fragrances should be prohibited.

- **Dust:** The dust suppression section 17.3.H is comprehensive, we only seek that dust suppression tactics (water only) be utilized within at least 1,000 feet of the high water mark of any body of water in 17.3.H.4.

- **Access:** Regarding Section 17.3.I.1, we seek the addition of a bullet (17.3.I.1.e), requiring that the Operator shall be required to clean up any mud or debris that reaches the road way, within 24 hours of identification (through complaint or other means), to the satisfaction of the County LGD.
**Chemical Handling:** Chemicals used and stored at an oil and gas site pose a definitive risk to public health, safety, and the environment. The County has done a good job in requiring a chemical disclosure list. We recommend that the operator be required to:

- Present the County with a list of chemicals to be used in the hydraulic fracturing process, in table format including: the name, Chemical Abstracts Service number, storage, containment, and disposal method for such chemicals to be used, which the County shall make available to the public.
- We ask that chemicals used on site be removed from the site within (30) thirty days following completion of hydraulic fracturing.

**Recycle, Reuse, and Disposal of Fluids:** The recycling, reuse, and disposal of fluids also poses a definitive risk to public health, safety, and the environment. We ask that the County:

- Remove the clauses in Section 17.3.K.1 and Section 17.3.K.3 “unless technically infeasible.”

**Water Bodies:** Water bodies are extremely susceptible to impacts from oil and gas operations. Impacts to a variety of water bodies pose serious risk to public health, safety, welfare, and the environment. We recommend that, in Section 17.3.L, in addition to the requirements already in the draft rules, operators be required to do the following:

- Not cause adverse impacts to surface or ground water resources within Larimer County.
- Provide a water quality plan to Larimer County that includes details such as the operator’s plans for water quality testing, prevention of illicit or inadvertent discharges, stormwater discharge management, containment of pollutants, and spill notification and response as required by relevant state and federal agencies.
- Provide, upon their approval by COGCC, their plans concerning downhole construction details and installation practices, including casing and cementing design to protect surface water and aquifers from contamination.

**Visual:** The visual aesthetic regarding residential and even commercially zoned areas play a significant role in property values, therefore, we seek the following amendments and additions to section 17.3.M:

- In Section 17.3.M.1, we seek that the county recognize the importance of visual aesthetics to neighborhoods and residents in Larimer County, and include language in this provision that, “oil and gas operations shall not cause degradation to the scenic attributes and character of residentially zoned areas.
- Lighting at oil and gas sites is known to be a significant nuisance to surrounding residents, and at times commercial areas; therefore, provision 17.3.M.3 regarding lighting should include the following requirements:
- Operator shall use best management practices to minimize light escaping the facility at all phases of oil and gas development. This includes during workover and lift operations:
  - All lighting must be downward-facing and fully shielding bulbs to prevent light emissions above a horizontal plane drawn from the bottom of the fixture.
  - Operator shall also take into account topography and location of downhill structures to avoid shining light into downhill properties.
  - Operator shall use a minimum 32-foot wall to reduce light escaping the facility at all phases.

- We ask that the best industry standard fencing be required in Section 17.3.M.4 at all oil and gas sites and for all independent surface equipment for the protection of public safety and for the security of the site.

- Current and proposed oil and gas development leaves a significant print on the landscape. We ask that Section 17.3.M.5 regarding Landscaping require that:
  - Any new or workover oil and gas development shall be conducted in a manner to prevent and minimize the removal of existing trees and vegetation.
  - Operations shall be sited away from natural features and environmental resources including distinctive rock and land formations, rivers, streams, and distinctive vegetative patterns.
  - Oil and gas shall be buffered from sensitive visual areas by providing landscaping along the perimeter of the site between surface equipment and sensitive visual or residential areas.

- Under Section 17.3.M.6, Weed mitigation and management at all oil and gas facilities and equipment sites must be required until final reclamation and abandonment.

- **Well Plugging and Abandonment:** In addition to complying with the COGCC’s plugging and abandonment requirements, we suggest additional points Larimer County can adopt to better protect public health, safety, welfare, and the environment. Regarding section 17.3.N, we seek these additions:
  - Notice to the County LGD within 48 hours of both commencement and completion of such activity.
  - A requirement that an oil and gas operator notify the LGD of intent and operations regarding well plug and abandonment. Further, the County should notify residents living within one mile of plug and abandonment activities.
Upon plug and abandonment operations, the LGD and operator shall conduct an assessment identifying all active and abandoned wells within one mile of the planned reclamation site and conduct an assessment following completion of the plug and abandonment for leaks at nearby wells.

Operator shall conduct a soil assessment at various depths and distances upon plug and abandonment and report its findings to the county.

Ongoing air quality monitoring shall be required at intermittent distances from plug and abandonment site during plugging and abandonment.

A decommissioned oil and gas assessment is performed prior to any hydraulic fracturing, and at periods following hydraulic fracturing, of any site plugged, decommissioned, or removed from use, and dry and removed from use oil and gas wells within ¼ miles of the borehole of the proposed well, to include:

- All abandoned wells within ¼ mile of the projected track of the borehole of a proposed well based on COGCC and other publicly available records.
- A risk assessment of leaking gas or water or other fracking fluids to the surface or subsurface water resources, taking into account the plugging and cementing procedures described in any recompletion or plugged and abandoned report filed with the COGCC.
- Notice to the County and COGCC of the findings from this risk assessment.
- Permission from each surface owner with an abandoned well on their property to access the abandoned well to test the abandoned well. (Testing of a well would not be required if the operator does not receive permission from the relevant surface owner within 30 days. Operator must notify County of inability to access property prior to commencing hydraulic fracturing.)
- Soil gas surveys at various distances and depths as suggested by the risk assessment surrounding each abandoned well prior to hydraulic fracturing.
- Soil gas surveys at distances and depths as suggested by the risk assessment surrounding each abandoned well within 90 days after completion, and at least once a year after production has commenced.
- Notification to the County and COGCC within 3 weeks of the results of these surveys.
- In the event that contamination is detected in these surveys, not further operations may continue until the cause of the contamination has been determined and corrected, and the County has given its approval for operations to continue.
• Permanent, physical marking of the location of the abandoned well by setting a brass plaque inscribed with all information required by the COGCC into concrete at the location of the abandoned well.

• **Flowlines, Transfer Lines, and Gathering Lines:** Flowlines, transfer lines, and gathering lines represent a significant amount of infrastructure mixed in communities and environmental resources. We seek these additions to Section 17.3.S:

  o Clarify a setback, commensurate with blow out radiuses and blast radiuses for existing and new pipeline systems, using the existing scientific formula established by industry (GRI-00/0189).
  
  o Require thorough mapping of flowlines and gathering lines on a scale large enough for real estate owners to discern lots.
  
  o Develop protocol regarding approval of flowline and transfer line permits as a part of all oil and gas applications.
  
  o Develop a system under which the County planner and operator maintain a current and comprehensive mapping system and database.
  
  o Develop a series of setbacks and reverse setbacks from pipelines infrastructure commensurate with their diameter and pressure and the risks posed to public health, safety, and environmental resources.
  
  o Require regular leak detection inspections and pressure tests, as well as tests and inspections upon request.
  
  o Require that buried pipelines use tracer wire, so as to be sure of their location and shape.
  
  o Require that pipelines be buried by at least four feet of cover.

**Section 17.4 -- Guidelines for Oil and Gas Development**

Protection of public health, safety, welfare and the environment, as required by SB19-181, means that upon asserting local control, local governments should be clear about their standard of operating and performance regarding oil and gas development. We strongly recommend that the language in Section 17.4 be direct and explicit, avoiding ambiguity or subjectivity. We seek that the County adopt language, whereby, “the County requires” specific “guidelines” regarding current oil and gas development and proposals. Therefore, we ask that the County require:

• In Section 17.4.A.1 regarding air quality, require tankless production techniques as applicable, use zero emission dehydrators, use pressure suitable separator and vapor recovery units, use no-bleed continuous and intermittent pneumatic devices; the use of electric rigs and Tier 4 engines; use automated tank gauging, and prohibit flaring except during emergencies or upset conditions.
• We recommend that in Sections 17.4A.2 be moved to Section 17.3.G, and that the county review and adopt regulations similar to other jurisdictions such as Adams County or Gunnison County requiring best management practices and use of best technologies.

Section 17.5 -- Application Requirements and Definitions

Regarding Section 17.5, we ask that the county further define both the documentation it is requiring of operators applying for new oil and gas permits and flesh out section 17.10 applying definitions to terminology as most applicable to local governmental jurisdiction.

Conclusion

In closing, we ask Larimer County to make clear to current and potential oil and gas operators a standard of performance that prevents and, where impossible to prevent, mitigates adverse impacts to public health, safety, welfare and the environment. We also request that the County implement a transparent public process regarding current and proposed oil and gas operations across Larimer County.

To make clear that the priority of the County is the protection of public health, safety, welfare, the environment, and wildlife resources in Larimer County, LOGIC and the Larimer Alliance request the following of the government of Larimer County:

1. Implement a strong system of accountability that keeps the burden of oil and gas development and its impacts from costing Larimer County taxpayers.

2. Develop a clear series of land use code regarding the siting of oil and gas development that ensures that the public health, safety, welfare, and environmental resources of our county are not unduly jeopardized or at risk. This includes implementing a minimum 2,000 foot setback from all residential, high occupancy buildings, outdoor parks and rec, water bodies, and other environmentally sensitive areas. COGCC maps will be referenced for flowlines and gathering lines to be included in this setback.

3. Require standards of performance for operators that directly and definitively address air quality, water quality, odor, light, noise, and traffic. This includes 24/7 air quality monitoring such as the well-proven INSTAAR equipment in use in Boulder County.

4. Remove loophole language that promotes ambiguity or allows unnecessary risk to public health, safety, welfare, and the environment.

5. Assert by printed word and action the county’s intent to protect public health, safety, welfare, and the environment. This includes a transparent and timely public process regarding oil and gas development in Larimer County.
6. And last, we point to our original request to place a hold on all oil and gas permitting decisions until the COGCC has completed its rule making and Larimer County has subsequently developed a consistent, comprehensive system for addressing oil and gas.

Thank you for your consideration of these comments. We welcome further dialogue with commissioners and Larimer County staff. We stand ready to answer questions you have about the regulatory recommendations contained herein. Please contact any of the undersigned parties with questions you may have regarding these comments.

Sincerely,

Sara Loflin
Executive Director, League of Oil and Gas Impacted Coloradans
303.819.6531, sloflin@coloradologic.org
Josh Joswick
This is intended as comment on the draft Larimer County oil and gas regulations. Specifically, the comments pertain to Section 17.3. – Standards Required for all Oil and Gas Facilities Sub-section S. Flow Lines, Transfer Lines and Gathering Lines, and on the need to include the siting of oil and natural gas gathering lines in that section.

By means of introduction, my name is Josh Joswick; my background is that I have worked for roughly 30 years as a private citizen, mayor of Bayfield, CO, three term La Plata County commissioner, and community organizer for the San Juan Citizens Alliance and the Earthworks Oil and Gas Accountability Project, in an effort to hold the oil and gas industry accountable for its impacts to communities and their residents. Recently, I have been giving presentations to Front Range local governments and citizens’ groups on the need for local governments to become involved in the siting of gathering lines. The following is for your consideration for inclusion in the Larimer County regulations.

**Background:**
In general, distinction should be made between commercial/retail lines and production lines. Commercial/retail lines are usually smaller, lower pressure lines that move gas to structures to be used by consumers, and these are regulated by the Colorado Public Utilities Commission (COPUC). These comments do not pertain to commercial lines. Production lines are lines that move product from the well to market; and there are essentially 3 kinds of production lines: transmission, flow, and gathering lines.

- Transmission lines are large, high pressure lines, usually interstate and regulated by the Pipeline Hazardous Materials Safety Administration, a federal agency.
- Flowlines are smaller, lower pressure lines regulated by the Colorado Oil and Gas Conservation Commission.
- Gathering lines fall between these two in size and pressure. While there are aspects of their installation that are regulated (how they are installed), their siting (where they are installed) is not regulated by any state or federal agency.

And this lack of regulatory oversight over the siting of gathering lines is where local governments must come in to fill the regulatory gap.

By their nature, pipelines experience failure events. If failure events are seen as infrequent, they must also be seen for the potentially serious consequences that may significantly impact the general public.

Failure events create areas of impact. In the case of oil lines, that means spills; in the case of natural gas lines, that means explosions. It is these impact areas (especially if they are in what would be considered *High Consequence Areas*, that is, areas of significant population densities) that are critical for local governments to be aware of and base their actions on.

**Actions:**
Where this is leading is local governments’ need to do two things:

1. Get full disclosure from operators on the location of existing gathering lines;
2. Establish a permitting process for the placement of proposed gathering lines.
For existing lines, local governments need to know:

- Location and depth
- Age
- Content and Daily Flow Rate
- Size
- Pressure
- Estimated worst case scenario for spill or explosion

This is information the pipeline operator will have readily available and should be required to disclose to the community.

For proposed gathering lines, local governments need to establish a permitting process through which operators would have to go in order to get local government approval to put in a line. Local governments need to know:

- The same things as are listed above for existing lines, most especially where the line will be, its size, and the pressure under which it will be operating.

With this information, local governments can then determine the adequacy of proposed locations by determining the impact area a failure event would create. In other words, local governments should assess if the distance (setbacks) of the proposed line from structures and infrastructure is adequate for public safety.

There are ways to make that assessment. In the case of natural gas lines, these distances or setbacks can be determined by application of the industry-accepted equation found in the Gas Research Institute (GRI) Report 00/0189 A Model For Sizing High Consequence Areas Associated with Natural Gas Pipelines. The report describes itself as “A simple and defendable approach to sizing the ground area potentially affected by a worst-case ignited rupture of a high-pressure natural gas pipeline.”

The diameter and operating pressure of a pipeline are put into the equation and the size of the affected area, in the event of a credible worse-case failure event, is determined. Application of this formula will tell the permitting agency if the proposed pipeline location is safe.

There are local governments that are, on some level, already doing this, and have not been challenged in court by the industry. And with SB 181 now giving local governments the ability to more fully regulate oil and gas development in their jurisdictions, there is no legal obstacle to putting a permitting process for the siting of gathering lines in place.

This is a matter of public safety, and the information and process described herein increase the safety of the residents of Larimer County.

Thank you for affording me the opportunity to comment of Larimer County’s draft regulations. If you have any questions, need anything clarified, or would like to have a presentation to staff of what I discuss in this comment document, please do not hesitate to contact me.

Josh Joswick
josh_joswick2004@yahoo.com
970-903-0876
Ally Little
Note: This will be a new Section in the Larimer County Land Use Code. This is a preliminary outline of draft oil and gas regulations and is not all inclusive.

To keep the Task Force Committee discussion on track, please focus comments to the intent and purpose of the standards and avoid refrain from making small edits.

17.0. – OIL AND GAS FACILITIES

17.1. – Intent and Purpose.

A. **Intent and Purpose:** The Intent and purpose of this section is to establish and administer necessary and reasonable regulations for oil and gas drilling and production in a manner that protects and promotes the health, safety, and general welfare of the residents and environment of the County. To the extent practicable these regulations will require applications for oil and gas operations to demonstrate how adverse impacts will be mitigated to achieve a minimal negative impact on the environment, wildlife and residents of the County.

B. **Authority:** Pursuant to the authority granted to the County in C.R.S. 29-20-104(1) the review of such applications may include, without limitation:
   1. Land Use,
   2. Location and siting of oil and gas facilities,
   3. Impacts to public facilities and services,
   4. Water quality and source, noise, vibration, odor, light, dust, air emissions and air quality, land disturbance, reclamation procedures, cultural resources, emergency preparedness, and coordination with first responders, security and traffic and transportation impacts,
   5. Financial securities, indemnification and insurance as appropriate to ensure compliance with the requirements of Larimer County, and
   6. All other nuisance-type effects of oil and gas development.

C. **Applicability:** These regulations shall be applicable to all oil and gas drilling and production activity commenced on any property in Larimer County, after the date of ____________, regardless of what zoning district the property is situated in.

D. **Severability:** If any sections, 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 the section shall not be affected thereby and is hereby declared to be necessary for the public health, safety and welfare.

17.2. – Required Process and Permits

A. **Required Process:**
   a. Oil and gas drilling and production activities in Larimer County shall require Special Review approval (Section 4.5).

B. **Supplemental Review Criteria for Oil and Gas Facilities:**
   a. In addition to the Special Review criteria found in Section 4.5.3 of this Code, each oil and gas facility shall be approved only if it meets the following criteria:
      i. It complies all the requirements of this Section 17.
      ii. Reasonable and necessary mitigation steps have been taken to protect the public health, safety, and welfare and environment.
C. Permits required:
   a. Access permits
   b. Building permits as required for structures
   c. Development Construction permit
   d. All federal, state and local permits for oil and gas operations

17.3. – Standards Required for all Oil and Gas Facilities

A. General:
   1. All applicants are responsible for compliance with applicable federal, state and local laws and regulations for the operation of Oil & Gas facilities.
   2. Oil and Gas facilities should be located to minimize impacts on agricultural operations and Waters of the United States.

B. Air Quality:
   1. The use shall comply with existing federal and state laws and regulations applicable to its operations and emission sources as well as any future laws and regulations adopted by the Colorado Air Quality Control Commission (AQCC).
   2. Air contaminant emission sources shall apply for and comply with the permit and control provisions prescribed by the Colorado APCD C.R.S. tit.25, Art. 7 (C.R.S. § 25-7-101 et seq.) and the rules and regulations promulgated by the AQCC all applicable emission sources.
   3. Environmental Protection Agency (EPA) Reduced Emission Completions shall be used for all completions and well workovers following hydraulic fracturing, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system.
   4. Closed loop, pitless drilling, completion systems without permanent on-site storage tanks must be utilized for containment and/or recycling of all drilling, completion, and flowback fluids, unless the application demonstrates that it is economically infeasible or impractical to utilize such a system. All emissions shall be routed to and controlled by a flare or combuster operated with at least 98% destruction removal efficiency.
   5. Oil and Gas facilities shall be equipped with electric-powered engines for motors, compressors, drilling and production equipment, and pumping systems, unless it is demonstrated by the application materials the utilization of such equipment is not economically feasible or practical.
   6. During construction and exploration, the applicant shall demonstrate that the site, including traffic and construction equipment, complies with all AQCC standards.
   7. Oil and gas operators shall respond to air quality action day advisories posted by the CDPHE for the front range area by implementing air reduction measures, which should include:
      a. Minimizing/eliminating vehicle traffic and engine idling when vehicle is stopped for 10 minutes or more;
      b. Reduced truck and worker traffic;
      c. Delay vehicle refueling;
      d. Suspend or delay use of fossil fuel powered ancillary equipment;
      e. Postpone construction or maintenance activities; and
      f. Postpone will maintenance and liquid unloading activities that would result in emission to the atmosphere.
C. Leak Detection and Repair:
   1. Oil and gas facilities shall at a minimum conduct semi-annual leak detection and repair (LDAR) inspections using modern leak detection technologies and equipment. One of the Semi-annual LDAR inspections shall include a five-day notice to the County Local Government Designee (LGD) and County Health Department inviting them to observe, at their discretion, the inspection.
   2. Verified leaks to an oil and gas facility shall be reported to the County LGD and County Health Department within 24 hours of the discovered leak.
   3. All verified leaks shall be repaired within 72 hours, unless technically or operationally infeasible.
   4. Equipment leaks that pose an imminent hazard to persons, property, wildlife or the environment shall be shut down and not allowed to operate until the operator has provided evidence that the leak has been repaired.

D. Spills and Releases:
   1. Any spill or release at an oil and gas facility, including those reportable to the COGCC, shall be immediately reported, no later than 24 hours after the event, to the following local emergency response authorities in Larimer County:
      a. Larimer County Sheriff
      b. Larimer County Department of Health and Environment
      c. Larimer County Local emergency Planning Committee
      d. Larimer County Oil and Gas LGD
      e. Local Municipal Police Department if within one mile of a city or town
      f. Local Fire Department
   2. All spills or releases shall be cleaned up to the satisfaction of the local emergency response authorities, listed in item 1 above. Remediation of spills or releases reportable to the COGCC may be deferred to the COGCC and CDPHE.

E. Well Liquids Unloading:
   1. Best management practices, including artificial lift, automated plunger lifts and at least 90% emissions when utilizing combustion to control venting shall be employed at all facilities.
   2. Approved manual unloading shall require on-site supervision of the uploading process.

F. Noise:
   1. A three-day (one day being a weekend day) baseline noise analysis from all receptors within 350 feet of the proposed use, or the property line, whichever is closest to the proposed oil and gas facility, shall be provided.
   2. Predicted decibel levels shall be provided for various phases of development, as measured 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning of other local land use designation.
   3. Proposed mitigation measures demonstrating that the oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County:

Commented [FNH14]: I think this is fine, a little more than the state.

Commented [LS15R14]: I agree with Frank...not sure construction and traffic flows should be under AQCC? We should be requiring particulate emission (dust) control, and all kinds of odor control to relate with the CDPHE health study of the early stages of development in order to get a producing well.

Commented [LS16R14]: AQCC will be reviewing rulemaking in Dec to require O&G have all air permits in place prior to construction and development.

Commented [LMK17]: I wonder if there is a way to say LDAR or better technology so if something else becomes better we do not have to change this section?

Commented [LS18R14]: Can we require operators to report all leaks? I think we should require that all leaks must be internally documented and remediation within 72 hours, unless technically or operationally infeasible. Instead we do not have to change this section?

Commented [LMK17]: I wonder if there is a way to say LDAR or better technology so if something else becomes better we do not have to change this section?

Commented [LS19R18]: For reports, we could include something like “This information will be collectively reported on a monthly basis in the same format that Operator uses for reporting to the Air Pollution Control Division under Regulation 7.”

Commented [LMK17]: Could also state “The Operator may satisfy this reporting obligation in whole by submitting its AQCC Regulations No. 7 annual (or as often as required by current and future regulations) reports for the prior calendar year to the County and LCDHE, and supplementing them as needed to meet these reporting requirements for covered facilities within the County.”

Commented [LS20R18]: Could be 1a.

Commented [LA21]: Semi-annual is probably already required by operator’s State permits with CDPHE. I recommend we require more, but don’t require results to be sent in anywhere. Operators should just keep records of their inspections. That encourages operators to check for leaks more often than required without feeling fear of repercussions if leaks are found.

Commented [LA22]: Requiring operators to report all leaks will discourage them from reporting. Instead we should require that all leaks must be internally documented by operators.

Commented [LMK23]: Not sure what this means?

Commented [LA24]: This is not worded well- any spill? I think we should specify that all spills/releases must be immediately cleaned up, but the COGCC’s thresholds seem to be a little high. We do not have to change this section?

Commented [LA25]: Have these agencies been notified that they will be responsible for this information? If they haven’t been notified, then we need to add that.

Commented [LMK26]: 1a?

Commented [LMK27]: 1a?

Commented [LS28]: This is an application requirement, not a Standard for Development? Maybe for this section...
4. Decibel levels shall meet the identified level for the appropriate activity and adjacent land use. Decibels shall be measured at 350 feet from the site of operation/noise source (per COGCC) or at the property line of the adjacent land use, whichever is greatest. The type of land use of the surrounding area shall be determined by the County taking into consideration any applicable zoning or other local land use designation.

5. Oil and gas operations at any well site, production facility, or gas facility shall comply with the following maximum permissible noise levels appropriate for the zoning designation by the County:

<table>
<thead>
<tr>
<th>ZONE</th>
<th>7:00 am to next 7:00 pm</th>
<th>7:00 pm to next 7:00 am</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential/Agricultural/Rural</td>
<td>55 db(A)</td>
<td>50 db(A)</td>
</tr>
<tr>
<td>Commercial</td>
<td>60 db(A)</td>
<td>55 db(A)</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>70 db(A)</td>
<td>65 db(A)</td>
</tr>
<tr>
<td>Industrial</td>
<td>80 db(A)</td>
<td>75 db(A)</td>
</tr>
</tbody>
</table>

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 db(A) for a period of not to exceed fifteen minutes in any one-hour period.

Construction projects (pipeline or facility construction/installation) shall be subject to the maximum permissible noise levels specified for industrial zones for the period within which construction is to be completed pursuant to any applicable construction permit issued by proper authority or, if no time limitation is imposed, for a reasonable period of time for completion of project.

G. Odors:

1. Oil and gas operations shall be in compliance with the Department of Public Health and Environment, Air Quality Control Commission, Regulation No. 2 Odor Emission, 5 C.C.R. 1001-4, Regulation No. 3 (5 C.C.R. 1001-5), and Regulation No. 7 Section XVII.B.1 (a-c) and Section XII.

2. Operations shall prevent odors from oil and gas facilities from affecting the health and welfare of the public during development activities including drilling, fracking, and flowback to the extent reasonably possible.

3. A system shall be established for immediate response to odor complaints that includes options for ceasing operations, notification of affected residents, and temporary relocation of residents until the source of the odor is identified and resolved.

4. We encourage the Operator to communicate the schedule/timing of well completions activities to residents, which could allow for voluntary shutting of windows and air intakes or temporary relocation.

H. Dust:

1. Best management practices for the mitigation of dust associated with on-site and traffic activities shall be employed at the facility.

2. Produced water and other process fluids shall not be used for dust suppression.

3. Safety Data Sheets (SDS) shall be provided with the application for any proposed chemical based dust suppressants.

Commented [LA29]: including what?
4. Water only, unless otherwise approved by the County Health and Engineering Department, will be used for dust suppression activities within 300 feet of the ordinary high-water mark of any body of water.

I. Access:
1. 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:
   a. The first 50 feet of access drive from the edge of pavement of the adjacent road will be paved and the remaining portions of the access drive shall be composed of a minimum of 6 inches of compacted Class 5 road base.
   b. The access drive entrance shall include returns with a 30-foot radius.
   c. The access drive shall be treated with Magnesium Chloride during the entire construction phase, and any time there after when the level of use exceeds 200 vehicle trips per day.
   d. A mud and debris tracking pad shall be located at the end of the paved portion of the access drive.

J. Chemical Handling:
1. Prior to any hydraulic fracturing activity, the operator shall provide the County with a copy on the chemical disclosure registry form provided to the COGCC pursuant to the COGCC’s “Hydraulic Fracturing Chemical Disclosure”.
2. Drilling and completion chemicals shall be removed from the site within sixty days of the drilling completion.
3. The following toxic, including orally toxic chemicals shall not be added to the hydraulic fracturing fluid:
   a. Benzene
   b. Lead
   c. Mercury
   d. Arsenic
   e. Cadmium
   f. Chromium
   g. Ethylbenzene
   h. Xylene
   i. 1,3,5-trimethylbenzene
   j. 1,4-dioxane
   k. 1-butanol
   l. 2-butoxyethanol
   m. N,N-dimethylformamide
   n. 2-ethylhexanol
   o. 2-mercaptoethanol
   p. Benzene, 1, 1'-oxybis-,tetrapropylene derivatives, sulfonated, sodium salts
   q. Butyl glycidyl ether
   r. Polysorbate 80
   s. Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides
   t. Bis hexamethylene triamine penta methylene phosphonic acid
   u. Diethylenetriamine penta
   v. FD&C blue no 1.
K. Recycle, Reuse and Disposal of Fluids:
1. Drilling, completion flowback and produced fluids shall be recycled, unless technically infeasible.
2. Exploration and production waste may be temporarily stored, not to exceed two weeks, in tanks while awaiting transport to licensed disposal or recycling sites.
3. Produced water shall be transported by pipeline unless economically or technically infeasible.

L. Water Bodies:
1. The applicant shall provide documentation to the County, as required by the COGCC, demonstrating how the COGCC water quality protection standards are being complied with.
2. The Larimer County Health Department shall be provided with all water source tests, that are typically submitted to the COGCC or CDPHE.
3. Proposed oil and gas operations proposed within a flood plain shall require review and approval of the Floodplain Permit prior to the Board of County Commissioners hearing for an oil and gas special review application.
4. Produced water disposal via wastewater injection wells shall not be allowed.

M. Visual:
1. The application shall demonstrate compliance with the visual and aesthetic rules of COGCC and the Larimer County regulations for landscaping, fencing and lighting for all phase of the development of the site.
2. All oil and gas facilities shall be painted with colors that are matched to or slightly darker than the surrounding landscape, and shall utilized paint with uniform, noncontracting, nonreflective color tones based upon the Munsell Soil Color Coding System.
3. The location of all outdoor lighting shall be designed to minimize off-site light spillage and glare.
4. Fencing shall for all the phases of an Oil and Gas facility development to ensure the security and visual aesthetics of the use.
5. Landscaping for screening and visual quality from off-site shall be required within 6 months from the time of well completion.
6. Oil and Gas facility applications, including access roads serving the facility, shall demonstrate how compliance with weed control requirements of the County Weed District and Forestry Services Department will be met.

N. Well Plugging and Abandonment:
1. Well abandonment and reclamation shall comply with the COGCC rules, and shall include the following:
   a. Removal of all equipment from the well site,
   b. Restoration of the site surface to the conditions of the site reclamation plan,
   c. Notice to the County LGD of the commencement and completion of such activity, and
   d. Coordinates for the location of the decommissioned well(s), and any associated gathering or flow lines, shall be provided with the notice of the
O. **Flammable Material:**
   1. The location of flammable materials on site shall conform to all COGCC safety standards and local fire codes.
   2. A minimum 25-foot buffer, free of weeds and dried grasses, shall be required around anything flammable.

P. **Waste Disposal:**
   1. Oil and gas facilities shall remain free of debris and excess materials during all phases of operation.
   2. Burning of debris, trash or other flammable material is not allowed.

Q. **Removal of Equipment:**
   1. There shall be no permanent storage of equipment on the site of an oil and gas facility.
   2. When not in use, or no longer needed for on-site operations all equipment not being used on the site shall be removed.

R. **Maintenance of Machinery:**
   1. There shall be no maintenance of field equipment involving hazardous material within 300 feet of a water body.
   2. Any fueling on-site shall occur over an impervious surface with secondary containment and shall not occur during storm events.

S. **Flow Lines, Transfer Lines and Gathering Lines:**
   1. All off-site lines transporting process materials, production wastes, product and any other items used of 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.
   2. The location of pipelines shall be evaluated on a case by case basis, with determine locational factor being the size and type of pipeline being proposed.
   3. Coordinates of all flow lines, gathering lines, and transfer lines shall be provided.

T. **Temporary Water Lines:**
   1. Temporary waterlines shall be used, unless technically infeasible.
   2. Temporary waterlines shall be buried at all existing driveway and road crossing, or utilize existing culverts, if available.

U. **Financial Assurance:**
   1. The operator/Applicant must demonstrate the financial capability to reclaim all disturbed areas during each phase of the site development and following termination of the oil and gas operation on the site.
   2. The operator/Applicant must, for the life of the use, carry environmental liability insurance for gradual all potential pollution events.

17.4.- **Guidelines for Oil and Gas Developments**
A. Applications for oil and gas facilities are strongly encouraged to incorporate the following guidelines (best management practices). Where reasonably necessary, the County may require some or all of the following guidelines depending on the location and characteristics of the proposed facility.

1. To mitigate the adverse impacts of air emissions generated by oil and gas facilities, operators are encouraged to:
   a. use tankless production techniques,
   b. use zero emission dehydrators,
   c. use pressure-suitable separator and vapor recovery units,
   d. use no-bleed continuous and intermittent pneumatic devices, or alternatives such as replacing natural gas with electric or instrument air, or by routing discharged emissions to closed loop-systems of processes,
   e. use automated tank gauging, and
   f. eliminate all flaring except during emergencies or upset conditions, which shall be reported to the County (see std ___).

2. To mitigate the adverse impacts of odor generated by oil and gas facilities, operators are encouraged to:
   a. Add odorants that are not a masking agent, to adding chillers to the mud systems,
   b. Using filtration systems or additives to minimize odors from drilling and fracturing fluids except that the operator shall not mask odors by using masking fragrances,
   c. Enclose shale shaker to contain fumes from exposed mud where safe and feasible,
   d. Wipe down drill pipe each time drilling operation “trips” out of hole,
   e. Increasing additive concentration during peak hours provided additive does not create a separate odor. Additive must be used per manufacturer’s recommended level,
   f. Use minimum low odor Category III drilling fluid. This could include non-diesel based drilling muds including drilling muds that are low odor and do not contain benzene, toluene, ethylbenzene or xylene (BTEX),
   g. Apply ‘green frac’ methods, utilizing only sand and water as fracking materials or other ‘green frac’ materials agreed upon between the community and industry,
   h. The operator is encouraged to communicate the schedule/timing of well completions activities to residents, which could allow for voluntary shutting of windows and air intakes or temporary relocation.

3. To mitigate the impacts of multiple pipeline corridors, operators are encouraged to consolidate and share pipeline easements and corridors, unless it is technically infeasible.

17.5. - Application Requirements

A. In addition to the submittal requirements necessary to demonstrate compliance with the applicable Sections of the Land Use Code, applications for oil and gas facilities shall also include, when relevant, the following:
   a. A Site Inventory Map,
   b. A Safety Management Plan,
17.6. - Appeals
A. Any decision made pursuant to this section may be appealed pursuant to Section 22 of the Larimer County Code.

17.7. - Enforcement and Inspection
A. Applicants shall demonstrate compliance with the Larimer County Land Use Code, and with this Section. Failure to maintain compliance with the County approval of an oil and gas facility may result in the revocation of the approval pursuant to the procedures in Section 12 of the Land Use Code. The County retains the right to seek whatever remedy or redress is legally allowable.
B. The County reserves the right to inspect the property for compliance at any time.

17.8. - Fees and Security for Reclamation
A. The following fees are applicable to oil and gas facilities.
   a. TBD
B. An impact fee will be assessed as follows:
   a. Capital Transportation Impact Fees
C. Each application shall include financial security for the purpose of ensuring maintenance and reclamation may be accomplished if the applicant is unable or unwilling to perform its obligations.

17.9. - Termination of Use or Modification
A. No modification to an approved oil and gas facility shall be made without obtaining appropriate land use approval from the county.
B. Upon termination of use, the oil and gas facility must be reclaimed pursuant to the reclamation plan provided.

17.10. - Definitions
A. Unless otherwise listed herein, the definitions found within the Colorado Revised Statutes and COGCC regulations shall control.
Emails Received from Public (July 4th-December 15th 2019)
Public Comments

The following is a record of the comments received from the Oil and Gas webpage starting on July 4, 2019. The comments listed below have been taken directly from the emails received and have not been modified with the exceptions of typographical errors. The Community Development Department does not endorse any of the comments provided, we are merely providing transparency with the information we have received.

<table>
<thead>
<tr>
<th>Date</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 4, 2019</td>
<td>I am concerned about the ruin of our air quality from Weld County. We continue to get F's from EPA — proven largely to be from Weld County's methane. Can our county make an agreement with Weld regarding air quality?</td>
</tr>
<tr>
<td>July 9, 2019</td>
<td>How will the new Oil and Gas Commission use SCIENCE to establish protections for the health, well-being and safety of all Larimer County residents, human and animal alike? A majority of the appointed members of this new task force have ties to the oil and gas industry, so how can we trust them to put our concerns first?</td>
</tr>
<tr>
<td>July 9, 2019</td>
<td>I just watched the first meeting of the Larimer Co. O &amp; G Task Force and was SHOCKED at all the oilers on this board. Matt Lafferty seems to think it's great and that is very concerning. The Larimer County Commissioners are opening themselves up for litigation if they are not more careful. Your job is to protect us, not align yourselves with dirty oil &amp; gas. They are directly responsible for our poor air quality and 'F' rating from the American Lung Association. Time to follow the law and heed what SB-181 is telling your to do - Protect the people and environment.</td>
</tr>
<tr>
<td>July 9, 2019</td>
<td>It is quite shameful to think that the public officials who say that they represent the people's health, safety and security needs as our County Commissioners could possibly have thought that they'd get this poor excuse for an Oil and Gas Task Force to be created without public outcry. This is beyond shameful and needs to be questioned to see if it represents an illegal act by the commissioners as you have NOT followed the stated agenda of putting the task force together. You had 4 medical Physicians who applied for this task force who were not even interviewed. You selected a much greater than 50% group of members for the task force who are either closely aligned with Oil &amp; Gas Industry or who have vested interests in pleasing the Oil &amp; Gas Industry, or who are doing research with Oil &amp; Gas Industry funds. What's the meaning of this!??? You should be ashamed of your vote for the greater than 50% membership with vested interests for O&amp;G, and you will all be called out for not having acted in the best interests of the health, safety and welfare of your constituents. You have not interviewed people in great numbers with health and medical backgrounds who are NOT aligned with the Oil &amp; Gas Industry. Shame on you.</td>
</tr>
<tr>
<td>July 9, 2019</td>
<td>Is this the proper form for leaving public comment for the O&amp;G Task Force? Also, what opportunities will there be for the public to address members of the Task Force directly?</td>
</tr>
<tr>
<td>July 10, 2019</td>
<td>I am totally upset that more than half of the appointees to the oil and gas task force are either employed by that industry or have vested interests with the industry. That is equivalent to letting the foxes in the hen house. Contrary to some public officials’ belief climate disruption is not a fad it is a fact. Larimer county's air quality got an F from the American Lung Association this year. That is not just from cars it is also from that fact that the harmful gases produced by fracking in Weld county</td>
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| July 10, 2019 | I will be paying very close attention this issue for the following reasons:  
|             | 1) The oil lobby seems to be the dominant force on the task force. How did that happen? It is not a good way to insure the trust of your community.  
|             | 2) There are no "extremists" from the environmental community on the task force, yet there are at least three "extremists" from the oil lobby on the task force.  
|             | 3) The public should be given more than one opportunity to speak their minds directly to the task force.  
|             | 4) The oil lobby is not working in the interest of our country, or our communities, because it is exporting record amounts of our oil, gasoline, and diesel, while charging us more at the pump. More exports=higher demand=higher prices for Americans.  
|             | 5) There are hundreds of orphaned and abandoned wells in Colorado, left behind by bankrupted drillers. Who pays to clean up their mess? Taxpayers do.  
|             | 6) There are 23,000 wells in Weld County. Each well uses millions of gallons of fresh water during operation. That water is then polluted with chemicals and shot back underground into disposal wells. Where are they getting this water from, and where will they be getting water from Larimer County? Where will disposal wells be located, and how many? How much of our open space and parks is protected? We don't this filthy industry in Larimer County. I hope these questions will be addressed by the task force.  
|             | 7) According to Colorado State Employment Statistics, the oil lobby employs less than 1% of the workforce statewide. Why do you think they have the loudest voice in the room?  
|             | 8) That loud voice crows about the "huge" tax revenues the state collects from the oil industry. Why, then, don't we have the best roads and schools in the country? Where's the money? |
| July 11, 2019 | Seems to me the Oil & Gas Commission for Larimer county is heavily weighted toward the industry and developers. This is contrary to the goal of Senate Bill 181. What was the criteria used to select the panel members and who made the final selections? |
| July 12, 2019 | I am very concerned about the makeup of the Oil and Gas Task force. The task force consists of more than half of the members being from the oil and gas industry. This suggests a certain disregard for the recently passed SB181, which makes protecting public health and safety and the environment a priority when considering oil and gas projects.  
|             | I want to make sure my home, water and family are safe from oil and gas projects in Larimer county. We need to be moving away from oil and gas anyway due to the climate crisis. Please reconfigure the oil and gas task force to consider the safety of citizens of Larimer County in the spirit of SB 181. |
| July 22, 2019 | Hello. I was wondering how the health impacts of oil and gas development will be assessed? It doesn't appear that any physicians or public health experts are on the task force. Since assessing the impact of development on public health is a key component of the 181 legislation this is very concerning. Thanks for your reply! |
| July 25, 2019 | I have often heard reassurances from members of the oil and gas industry that the annoyance factors (noise, truck traffic, smells, lights) associated with drilling are... |
short-term and easily mitigated. However, these are not the primary concerns for Coloradans living along the Front Range. The impact on air quality, especially in regard to VOC emissions and ozone, are of far greater import. These emissions have long term negative impacts for a large percentage of the population of Larimer County. In just the last year we have had days when our air quality was worse than that of Mexico City or Beijing. And studies of the ethane markers of Front Range ozone show that at least half of those ozone producing emissions are directly attributable to oil and gas operations.

I would like to refer the members of the Oil & Gas Task Force to the following article written by a researcher from Colorado State University. The information is timely, current and relevant to the effort of crafting a draft proposal of Larimer County regulations.

Lesley Fleischman Gasping for Breath:
An analysis of the health effects from ozone pollution from the oil and gas industry. Clean Air Task Force

July 26, 2019

I noticed that the question of set-backs has been raised in Task Force discussion. I would like to offer the paper cited below as a resource for making recommendations on this very important matter. The article points out that in general setbacks have been determined by a process of negotiation between the industry and government entities with very little basis in data. The purpose of this review is to provide data from a number of different perspectives: What are adequate setbacks in the case of a blow-out event? What is a safe distance in regard to H2S emissions and VOC’s? How should emissions be monitored? And what criteria should be considered for establishing emergency protocols and training first responders?

Environmental Health Perspectives, Vol. 124, No. 9 Review
Adequacy of Current State Setbacks for Directional High-Volume Hydraulic Fracturing in the Marcellus, Barnett, and Niobrara Shale Plays
Marsha Haley, Michael McCawley, Anne C. Epstein, Bob Arrington, and Elizabeth Ferrell Bjerke
Published:1 September 2016 https://doi.org/10.1289/ehp.1510547

August 5, 2019

Regarding oil and gas development along the Front Range: As the VP of a growing Northern Colorado Manufacturing company my largest struggle is finding good employees to work in fabrication and assembly. Frankly I am tired of hearing about how we need oil and gas jobs, this statement may have been true 20 years ago, but today oil and gas hardly employs as many people as the Colorado tech and tourism industries. Today, solid, long term employers like my company are competing with short term employers like oil and gas. I have watched the cycle of some of my best workers leave for the oil fields, get laid off, and come back again too many times. Our Colorado employees are a commodity far more valuable than oil. We need them working in sustainable industries that will be here in a decade. They need stable employment, that's not oil and gas.

August 5, 2019

We need oil and gas jobs for people and the taxes they pay for schools and other things they participate in.

August 5, 2019

Four generations of our family have been in this area, in particular around Loveland and Fort Collins. Family members who have farmed and invested blood,
sweat, and tears into this land. Family members who have lakes and ponds around here named after them. Family members who were involved with the community as fire chief, accountants, cattle farmers, realtors, and many other occupations. One thing none of our family has done is being employed by oil and gas, this stated so that the extremists cannot default to their usual comment that anyone supporting the industry must be employed by them. O&G is a proven safe industry of hard working families and community members, we cannot afford to kill our economy due to extremist views and emotional unsupported responses from them. Also, and very important, land owners and mineral owners have rights to access their resources. The city and other government are responsible for taking this into account during expansions plans just as they account for water, open space, proximity concerns, and other associated details. This community came together and voted clearly to NOT further restrict this industry, then politicians forced 181 down our throats anyway. Restrict access to this industry and they will move out, taking their safe operations with them and taking our great economy with them. We cannot survive without fossil fuels. Not even the extremists renewable energies and electric cars can exist currently without fossil fuels. Eventually we all hope to be 100% renewable, but we are not there and we better embrace the O&G industry now to get us there.

**August 5, 2019**

I think that people need to realize the truth and stop following blindly while attacking an entire industry. Someone from earthworks just filmed an extraction location with a flir camera while it’s in frack stage, and said that all the stuff you see is VOC’s being poured into the air. When it was simply exhaust which I might add has all the local and federal required emission systems. I think people have no idea about the truth on what happens in the industry, and judge hard working people in the sense that they feel we all want these earth to die and people’s public health to be at risk. When we live in the same communities and drink the same water. People. Need to get an actual clue. Because what they read is 99% so far off it's ludicrous.

**August 5, 2019**

I am very much in support of local drilling and as part of 4 generations of Loveland families, it's important to note Colorado is a national leader in energy regulations already. The short time the initial operations are actually on site compared to the benefits are a no brainer. If the land owners have no issues with the equipment on their owned land, it's hard to understand why all the mineral owners (including the city) would not be thanking them for the site use and the benefits they will get for basically doing nothing but finally finding a company who is willing to pay them for mineral rights. These homeowners and the city need to realize if we shut down this opportunity the industry will move on and now our mineral rights are WORTHLESS. Colorado has the most comprehensive and stringent environmental rules in the nation, including rules that require disclosure and ensure the safety and transparency of fracking which has operated safely for over 60 years in Colorado. 43 thousand jobs currently are counting on moving forward, and many more in the future. Oil and gas sites will employ local Loveland families who pay taxes and contribute to this community daily. Everything from our home and rental home values, to the grocery stores, to the car lots, to the daycare centers, and on and on......have benefited from the local jobs this industry provides. As a state we voted NO on 112 !!! We must respect that vote.

**August 5, 2019**

A temporary Economy booster is NOT more important than Colorado's permanent ECOLOGY. These oil and gas companies and their employees do not care about Colorado. They come here, extract our resources for massive profit and leave the ecology in ruin. Their lack of understanding of the environmental impact of their
industry is negligent and dangerous.

On top of that they pay their employees to attend our town hall meetings and drown out the voices of the Colorado citizens that will be here long after their oil wells dry up and they leave.

Proposition 112 was a perfect example of these companies. They spent 31,350,000 lobbying to regulate the distance they can drill for Oil from schools and rivers, meanwhile environmentalists could only raise 1,000,000. They outgunned Colorado by 30 millions dollars, and only won the vote by 5%. Now they are setting up a rig literally on Mead High Schools campus between the school and the baseball fields. Deplorable.

**August 5, 2019**

Oil and gas had allowed me and my wife opportunities we otherwise would never have had.
Creating a good savings
Decent vacations
Her to work in education that does not pay well
Decent cars and not living pay check to paycheck
Paying home off faster
Stimulating the economy with extra discretionary income

**August 6, 2019**

I have lived next to a fracking operation for 4 years. My 1 important insight has been the length of the operation. It is one thing to have your life disrupted this way for a couple of months, but the length of these operations has been a nightmare. Often operating 24 hrs. a day no one should be subjected to this for such a long time. 4 years! Please advocate for shorter term of drilling whenever within any residences including rural residents.

**August 6, 2019**

As a 4th generation Colorado native family of Loveland, we support the safe and efficient use of our natural resources. This industries operators and associated businesses have provided income, jobs, increased housing values, and safe resources to our area for longer than many have lived here. The operators big and small have to follow the required regulations and liabilities. Loveland and the front range was built on small business growth and our community providing opportunities to organizations. Thanks to this, we have had family members who were cattle farmers on this very land who went on to retire as long-time government public servants for the Loveland community. The same people who by the way worked with and lived next to previous wells operated under far older technology. This industry has come a long way and deserves credit and the ability to move forward, our community cannot afford to restrict these hard working and safety minded workers and families. We have majority VOTED TWICE NOW NOT TO RESTRICT this industry, regulations and safety standards are being followed, governing entities have an obligation to the voters to allow these permits to move forward. Our schools, roads, parks, housing values, families, jobs, and much more need the income to continue to have a thriving community.

**August 6, 2019**

According to a study done by the National Academy of Sciences, “fracking is safe, end of discussion.” “In an examination of 130 different wells that was funded by the National Science Foundation and Duke University, researchers found “that when properly conducted, no groundwater or aquifer pollution resulted from the practice of fracking itself.” “Proving beyond doubt that fracking itself does not cause gas to seep into the water.” Also according the US Geological Survey, “Fracking is NOT causing most of the induced earthquakes.” These wells will be safe, there is
<p>| Date             | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |</p>
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<tr>
<td>August 8, 2019</td>
<td>Our family strongly supports more regulations and a ban on fracking. Our environment and health matters! No new rigs period. Colorado needs to lead the way on renewables not destroy our home.</td>
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<td>August 8, 2019</td>
<td>Please create stringent protections for the citizens of Larimer County from the emissions generated by oil and gas drilling and fracking. Oil and gas emissions contribute to the Ozone alerts that Larimer County residents have been experiencing in just the last couple of weeks, let alone the that few years. To illustrate the problem in a relevant manner for you, here is CDPHE's alert for yesterday:</td>
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<td>August 10, 2019</td>
<td>I think current oil and gas regulations are serving us well right now. Further restrictions will damage the oil and gas industry, and I DON'T want that to happen.</td>
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<td>August 13, 2019</td>
<td>The Larimer County Commissioners #1 responsibility if to protect and enhance the public health and safety of county residents. Facilitating the expansion of an already highly subsidized, polluting industry borders on dereliction of duty. Do the Commissioners believe industry profits are more important than the health, safety and quality of life of Larimer County citizens? The Task Force should take a good look at the map to see how fracking is supplanting tourism as an economic driver. Tourism serves the entire state and benefits residents. Do the right thing for the citizens of Larimer County, the majority of whom see zero benefits—only loss of quality of life—from the explosion of fracking industry. Larimer is not Weld County. Respect science. See the following article/map on how climate change is affecting Larimer County, no small thanks to the frackers.. Tourists once came to Larimer County to enjoy cooler summer vacations in the natural environment. Those cool, summer vacations are history, as Larimer County experienced a 2.0 rise in temps and has been out of compliance for air quality for decades. <a href="https://www.washingtonpost.com/graphics/2019/national/climate-environmen...">https://www.washingtonpost.com/graphics/2019/national/climate-environmen...</a></td>
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<td>August 14, 2019</td>
<td>I fully support the production of Oil and Gas not only in our State but in our county. We have some of the strictest rules and regulations already in place. We need to move forward with drilling to help support our communities.</td>
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<td>August 15, 2019</td>
<td>I worked in Weld County for six years, and my job required me to travel throughout the whole county and East as well. I saw well pads next to schools, playgrounds, and on farmland. I read up on fracking and learned about the millions of gallons of clean water used to frack one well, the toxic gases and chemicals used and released, the degradation of our air along the Front Range (American Lung Association giving us an &quot;F&quot; rating on air quality). My boss at the time, who lives in...</td>
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Ault, said she saw the oil and gas developers burning off gas they couldn't immediately sell, and I know there have been numerous toxic spills, accidents, and several deaths associated with fracking. I sometimes feel irritation in my sinuses and throat due to the ozone. I am horrified and scared by the degradation, and I believe the studies about increased rates of cancer and issues with fetal heart defects caused by fracking. I feel grief due to the poorly managed and insufficiently regulated oil and gas development and by the fact that the state has overturned all the citizen initiatives to protect neighborhoods, schools, sources of water, and air quality (let alone the beauty of our state). The development has caused me great concern and worry, and I know it is compromising our environment and health. We need to slow this process down dramatically, limit it, and regulate it so the least amount of pollution possible is released.

We need to put the needs of our children, water, air, wildlife & natural lands before the greed or "need" for fossil fuels.

August 16, 2019

#1: Planning/Zoning: Would it be realistic to incorporate a "framework" of Mr. Jon Turner for initial Planning Approval, not necessarily re-zoning the surface site, but approval being made via a Condition Use Permit? Would this allow for incorporation of existing state and county rules/regulations but also allow for site specific details and public comment incorporation, and also enhance/strengthen County Enforcement and issuing penalties for violations?

#2: Air Permit: When is the air permit issued? The COGCC data base does not include the air permit (or may not be readily/easily navigable to find) What levels are required for dust, NOx, SOx, Benzene, hydrocarbons, etc during drilling and production? How are these monitored?

#3: Community Relations (Producer): The public voice to the producer is the Complaint system, which as was presented by the State representative, the system is a "nuisance"; and the State presenter no longer wants this responsibility. From recent experience, the term "nuisance" may have less use if there are much improved community relations requirements and activities. Could this include: accurate information from the producer including site layouts, well layouts, timely responses, action and response correspondence, etc. Could the Use Permit include the condition on volume/quantity of complaints?

#4: Frac'ing & Geologic Consequences, Pollution Emissions (noise, light, dust, hydrocarbon): Prior to permit approval, would it be possible to have studies/reports on these conditions, with Public comment? It appears that there is very little research to further understand long term Environmental effects from the Frac'ing fluid chemical composition, and resulting geological impacts after injection of high pressure fluids, extraction of high pressure gas/fluids.

#5: Permit Denial: As presented by the State, there is no permit denial process. Would it be possible that if conditions aren't met within a specified time, the permit would be denied?

#6: Environmental protection of Livestock (and wildlife): Construction/drilling, and long term production has impacted the livestock (horses) and caused wildlife dissipation (movement outside of their habit). Could buffer zones be incorporated to protect the livestock and wild life?

#7: Flaring: Could requirements be included so that all flaring events (both temporary/construction and long term operation) are conducted using an enclosed flare, to minimize bright lights and noise? Additionally, can regulations include control and enforcement on the number of flaring events?

#8: Emissions: With MACT, it appears as if Exploration and Production emission
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<td>August 18, 2019</td>
<td>How much does it cost to do a blood test for benzenes and volatile compounds from O&amp;G operations? I hope the county considers asking operators to fund blood tests for citizens who are concerned they are being adversely affected.</td>
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<td>August 21, 2019</td>
<td>Colorado law now prioritizes protecting public health safety, and the environment in matters of oil and gas development. Since racking causes many different types of problems in the environment and in the aquifer that the public depends on for drinking water, I am asking Larimer County government to prioritize protecting public health and safety, and the integrity of public lands in accordance with Colorado Senate Bill 181, by suspending all pending applications for extraction.</td>
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<td>At BOCC meeting yesterday, Commissioner Donnelly seemed offended that the Larimer Alliance for Health, Safety &amp; the Environment had not given due credit to the many levels of government that have long worked hard to improve our air quality. I feel it very important to point out that no one is doubting these efforts, but instead trying to guard them. . . Commissioner Donnelly seems unaware that for what little movement all these efforts may have won (we're still flunking national ozone standards for public health), increasing oil and gas drilling in Northern Colorado without insisting that the industry take responsibility to clear the air will absolutely ruin any small advancement on behalf of any other contributing factor. The overwhelming amount of poison in the air is from industry — not cars, not lawnmowers, not lack of rules for how individuals navigate in their communities. And industry is in a far better position to do something about it. The tax base it provides is proven not dependable, and not worth ruining public health. Do we want to fix our pollution problem? Or pretend that recycling and other consumer habits stand even a chance at wigging the ozone meter?</td>
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|            | I live in rural Larimer County. There is a fracking rig within 2000 feet of my house and a mere 1000 feet of some of my neighbors. I occasionally note a strong "chemical smell" when I am outside and I have even driven into town, parked my car and left the windows open for it to air out. (I park in a garage at home and the odors permeate). The chemicals in the air are nasty. We also have some noise pollution since they run generators all night. (the vertical drilling was completed over a year ago). I wish our country could survive without oil and natural gas but currently I know this is not feasible. Until we have 100% renewable energy, please keep Larimer County residents healthy by enforcing setbacks of at least 2500 feet. Thank you.
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<td>August 23, 2019</td>
<td>According to Colorado State employment statistics, less than 1% of Colorado jobs are created by the oil and gas industry. In 2014, at the peak of the fracking boom, there were over 100,000 wells in CO. Americans were paying $4/gallon at the pump for fuel, while we were swimming in oil. Where was all our oil going? It was being exported as gasoline and diesel in order to keep the price high. At the time, there was a ban on US crude oil exports, not on gasoline and diesel exports. In 2015, when the US oil industry ran out of storage space for the oversupply of oil, the market crashed. Oil prices dropped from $100/barrel to about $30/barrel, gasoline and diesel prices dropped from $4/gallon to about $1.59/gallon. Good news for American consumers, bad news for the US drillers. Half of them went bankrupt, and abandoned their wells. That is why Colorado now has over 50,000 orphaned, and abandoned, wells. (These stats come from COGCC). The US oil lobby got right to work, and coerced the Republican dominated US Congress to repeal the ban on US crude oil exports. That being done, US oil exports have soared to record levels, while prices at the pump have risen from less than $2/gallon to about $2.50/gallon. More exports=more drilling=higher prices for Americans.  The point of all of the above is that when all those drillers went bankrupt, drilling activity in CO dropped by at least 50%. What happened to Colorado's economy? Nothing. It didn't blink. The industry's importance to Colorado's economy is greatly exaggerated. We would do fine without them. They have the loudest voice in the room, and leave the biggest environmental footprint of any current industry in CO. With all the spills and explosions, I don't believe any fines were ever imposed on the industry. I would also add the following question. With all the imagined tax revenue that comes from oil and gas, why don't we have the best roads and schools in the country? This industry needs (at least) to be heavily regulated, taxed, and fined when disasters occur. They should also be forced to pay for closing abandoned wells. Taxpayers should not have to pay for any of the mess left behind.</td>
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<td>August 27, 2019</td>
<td>Ft. Collins passed a moratorium on oil and gas within city limits some years ago, but the gov. sued to stop it. Now we need to do it. !!!</td>
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<td>August 28, 2019</td>
<td>With the passage of major reform legislation earlier this year, Colorado law now prioritizes protecting public health, safety and the environment regarding oil and gas development. At this time the county should block new oil and gas development as the county develops new regulations that meet the goals of the new law. Also, the county needs a balanced task force as currently the task force has a majority of member with direct ties or invested interest in the oil and gas industry.</td>
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<td>August 29, 2019</td>
<td>I just spent a couple of days backpacking in in the Comanche Peak Wilderness above 11000 ft. It was absolutely gorgeous but how depressing to see the brown smog when looking to the east. We have to get our air pollution under control and one way is to suspend oil and gas operations in Larimer County.</td>
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<td>August 30, 2019</td>
<td>Please no new wells, no fracking, our water and health matters!</td>
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|              | 1. What's most important to regulate at the local level when it comes to oil and gas facilities?  
My response:  
Land use  
Setbacks  
Environment |
Air quality  
Operational protocols  
Other: Financial protection for residents and government: O&G operators/companies should be required to provide current information about their financial condition, proof of financial strength and adequate liability insurance, and disclose records of past financial, operational, or employee-related citations or violations; and required to post financial security bonds of $100,000 per well to cover future clean-up and capping costs in the event of default, bankruptcy, or other failure to properly clean up, cap, and remediate wells/sites.

2. What other input regarding regulations would you like to share with county staff and the Oil and Gas Regulations Task Force?
My response:

State policy and law (SB-181) now clearly prioritizes protection of public health, safety, and environment in matters of oil & gas development. The intent of SB-181 is also to ensure that communities will no longer be endangered and harmed by O&G development, and that O&G emissions must be significantly reduced to improve air quality.

Protection of public health, safety, and environment needs to be based on facts and evidence, and not a political compromise intended to foster oil & gas development as in the past. Substantial scientific evidence, including research conducted in Colorado, indicates that 1,000’ setbacks are insufficient to provide protection of public health and safety. Many studies have found that oil and gas development causes negative health impacts at 1000’ distances and beyond. Health dangers associated with proximity to oil and gas development include cancer, respiratory illnesses, congenital heart defects, high-risk pregnancies, birth defects, other pre- and post-natal health issues, headaches, nose bleeds, throat irritation, eye burning, shortness of breath, and skin rashes. See Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking

Larimer County residents want to breathe clean air; and pollution and bad air quality hurt Larimer County residents and businesses. Oil & gas development including drilling and fracking contribute significantly to toxic air pollution and smog (ground-level ozone) at levels known to cause health damage and environmental impacts. California determined that fracking can have “significant and unavoidable” impacts on air quality, including driving pollutants above levels that violate air quality standards. Scientific evidence (FRAPP-F-Shirt and Boulder Reservoir air quality research) indicates this is also true in Colorado. O&G emissions send toxic plumes across local neighborhoods and schools, and damage air quality throughout the Front Range, causing dangerous ozone and giving Larimer County some of the worst AQ in the country. To protect public health and environment including the climate, Larimer County needs to adopt regulations that will rapidly reduce and prevent emissions from oil & gas development; needs to accurately monitor (24/7) and report (in real time) on emissions from oil & gas operations and air quality; and needs to undertake effective and timely enforcement actions for all violations. Monitoring should be paid for by O&G operators. The County must immediately stop allowing unmonitored and unlimited emissions from new wells for
90 days.

The County should also establish credible monitoring of water quality and noise near O&G facilities, require immediate reporting of all spills, and undertake effective and timely enforcement actions for all violations.

The County needs to recognize the urgency and issues related to climate change, and the role of O&G gas development in climate change, which has major economic costs as well as impacts on public health, safety, agriculture, water resources, and environment in Larimer County and elsewhere. Natural gas is a major driver of the climate crisis; methane (fracked gas) leaks into the atmosphere, greatly accelerating climate change; it has contributed one-third of increased methane emissions globally over the past decade. The County needs to adopt stringent regulations that minimize and prevent methane and other greenhouse gas emissions from O&G gas development; establish credible monitoring of potential methane and other greenhouse gas emissions from O&G gas operations; and undertake effective and timely enforcement actions for all violations.

"All together, findings to date from scientific, medical, and journalistic investigations combine to demonstrate that fracking poses significant threats to air, water, health, public safety, climate stability, seismic stability, community cohesion, and long-term economic vitality. Emerging data from a rapidly expanding body of evidence continue to reveal a plethora of recurring problems and harms that cannot be sufficiently averted through regulatory frameworks. There is no evidence that fracking can operate without threatening public health directly or without imperiling climate stability upon which public health depends."

from the Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking
https://www.psr.org/blog/resource/compendium-of-scientific-medical-and-m...

3. What suggestions do you have for future community engagement on this topic? My response:

The County should provide reasonable and timely information to the public, and establish effective mechanisms for public participation.

The County made highly consequential decisions about appointments to the Oil & Gas Regulations Task Force with bare minimum legal (24-hour) public notice, which was not reasonable, contrary to the County's promise of transparency and public participation in prior public statements, and a violation of public trust.

The appointment of a Task Force in which two-thirds of the members work for the O&G industry, are service providers to the industry, or land developers with interests in profiting from O&G development, with no opportunity for public participation or comment in the appointment process, was a violation of public trust. The violation caries forward now in the composition of the Task Force.

It appears that Task Force members have substantial conflicts of interest that compromise the Task Force, but the County has provided no public disclose of conflicts of interest by Task Force members. Where is public participation in the matter of conflicts of interest by Task Force members?
The claim by Larimer County that Task Force members who are O&G industry employees and service also qualify as environmentalists who can represent environmental interests is incredulous. As noted above, Larimer County appointed Task Force members without real transparency or public participation, which suggest that Larimer County did not want to risk public comment on its incredulous appointments.

At this point, the shortcomings in transparency and public participation by Larimer County in appointing the Task Force, and allowing no public participation to date in the Task Force proceedings, have made a farce of the Task Force and its eventual recommendations. A belated effort at “public engagement” can do little to remedy the mistakes already made by the County, or to recify the violation of public trust.

The County should start over with a Task Force that is appointed with transparency and public participation, and which proceeds with transparency and public participation. For the County to try to add “public engagement” at this point in the badly flawed current Task Force process is tantamount to putting lipstick on a pig.

Until the new COGCC has settled on new guidelines (inn a few weeks or months), please do not approve any Oil & Gas permits (for either new or re-activating dormant wells) anywhere near where people live, work, or play or any water used for crops, wildlife, or drinking water for human habitation. There are more than 60,000 active wells in Colorado now (per Fracktracker.org). That’s enough to keep them in business for now, don’t you think? Please do not approve any permits until safety and health are a bigger part of the decision-making.

Why is the questionnaire on Survey Monkey no longer available? It was announced to be live until 8/31. I write on 8/30 well before midnight and it is "not available." Why is everything so rushed??

The Oil & Gas (O&G) or O&G Task Force Survey was supposed to stay open for public comments until the end of the month but was closed earlier today. Why?

Please open it back up for at least (2) more days like it was supposed to be unless public comment isn’t really appreciated. If the county truly wants to be fair and transparent it will do this plus sufficiently advertise the survey’s reopening so the public has time to respond to the reopening of the survey and make additional comments.

August 31, 2019

I have had a chance to submit my opinion through your website, but I am disappointed something that was supposed to remain open through to the end of the month has been shut down early. Data can and should continue to be gathered as it was publicized until the end of the month... weekend be damned!

The Oil & Gas (O&G) or O&G Task Force Survey was supposed to stay open for public comments until the end of the month, today, but it was closed yesterday. Why? Many working people only have time on weekends for this sort of thing, and if the end of the month falls on a county day off, the time should be extended, not shortened from the announced "end of month."
Please open the public comment period back up for at least (2) more days like it was supposed to be, unless public comment isn't really welcome and appreciated. If the county truly wants to be fair and transparent it will do this, plus sufficiently advertise the survey's reopening so the public has time to respond to the reopening of the survey and make additional comments. Indeed, the time should be extended a reasonable amount to account for this, most likely by 1 week.

I planned to comment on The Oil & Gas (O&G) Task Force Survey today however the survey was closed. I believe this survey was supposed to stay open for public comments until the end of the month but was closed earlier today. Why?

I urge the Task Force to open the survey back up for at least (2) more days, like it was supposed to be. Public comment is important for our democracy and if the county truly wants to be fair and transparent it will do this plus sufficiently advertise the survey's reopening so the public has time to respond to the reopening of the survey and make additional comments. Thank you for considering my point of view.

It has come to my attention that this oil and gas task force is a sham. Stacked with oil and gas insiders. If so, that disgusts me! How dare you go about governing our county this way, that is the worst of Washington, DC, and the worst of government. Colorado is better than that! And it better stay that way. I see all the signs of corruption in my two Republican County Commissioners. Larimer County is not Weld County, we have far better options to continue having a great economy, and more importantly a great place to live. And we are doing very well. We're smart enough and moral enough to have pulled that off without destroying our natural environment. And we are smart enough to know how important our natural environment is to every aspect of a high quality of life. If you two proven wrong Republican Commissioners, proven wrong by all the success Ft. Collins has had with very progressive policies, again successful policies, fail to learn from what works and why, you are in the wrong jobs. Are you corrupted? Are you part of the worst of human nature and the worst of capitalism? Are you oblivious to the fact that we know how to do much better? Are you horrible people whose greed outweighs their moral fiber? Will you harm everyone else for a few people's selfish gain? If you cannot prove otherwise with your actions, then the answer is yes, you are corrupted, and therefore a disgrace to all things intelligent, honorable, moral and advanced. If you are honorable, or Christian in any way, you will not continue with a stacked task force, and you will not ignore the will of we the people. Almost every comment I've seen has been against what you are doing. If you ignore all that, especially without coming clean and facing us like honorable men, then we know you are not. We will know that the worst of the proven dead wrong across the board, and now proven immoral GOP has poisoned Larimer County. No real Coloradoan accepts that. Neither does God, if that matters to you. Don't gain the world and lose your souls. Don't put your faith in material things while destroying our beautiful part of the world, that would make you real scumbags.

Please protect our beautiful state and environment. Our air and water are a precious resource that we can not abuse! Lives matter, health matter much more than temporary jobs. WATER is all we have, we can not drink oil. Be responsible and protect our us from abuse and DO the RIGHT thing.

September 4, 2019

Please ensure that oil & gas regulations in our county fulfill the spirit & letter of the recent law, Senate bill 19-181, that says Colorado must protect the health, safety
& environment of the state & its citizens. Thank you for considering my views on this matter.

**September 8, 2019**

I would like the county to take into account what is happening to air quality. Methane gas is known to be more than 80 times worse than CO2 for global warming. We know that we are trashing our environment with the use of carbon base fuels. Government needs to step up and protect the small farm owners, homeowner from a fracking well that is polluting the air we breathe, the ground and the water we drink. Do something. Stand up to the oil and gas companies. Stand up.

**September 11, 2019**

To reference some facts here with a comment. Emissions dropping by 20% in Weld County since 2006 even with a 100K population increase, data from the Bureau of Labor Statistics shows that oil and natural gas extraction is the seventh SAFEST industry in this nation, Colorado implementing precedent-setting regulations from baseline groundwater testing and monitoring to air regulations targeting methane leak detection, flow lines tested with a common passage rate of 99.65 percent, with zero having an issue of reportable size, and an in depth study done by the National Academy of Sciences states, “fracking is safe, end of discussion.” In an examination of 130 different wells that was funded by the National Science Foundation and Duke University, researchers found “that when properly conducted, no groundwater or aquifer pollution resulted from the practice of fracking itself.” “Proving beyond doubt that fracking itself does not cause gas to seep into the water. These operations have been safely used in Colorado for well over 50 years. Families, schools, parks, our economy, housing values, city and state revenue, and staying out of the unemployment lines are counting on us safely utilizing these available resources. Twice our citizens have voted NOT to further restrict the O&G industry only to now have 181 forced upon us by those who think they don't need to listen to their constituents.

**September 15, 2019**

Hello - I attended the recent open house and of all the exhibits, what jumped out were the clear priorities of the public based on the input received to date. The county/task force's priorities listed were starkly different, so clearly a re-alignment needs to take place.

Particularly for concerns over the air and water quality, and otherwise environmental impacts being rated above all else. As county residents, we are expecting that the task force will be architecting its priorities and next steps based on the public's input and these specific items. With those in mind, it is disappointing and irresponsible that the county has not paused permits until plans are in place to prioritize health, environment and safety per what SB-181 allows for municipalities' control levers.

Please adjust and do what constituents are clearly asking for.

**September 29, 2019**

Fracking’s costs outweigh its benefits

Some policymakers along with oil and gas companies are quick to cite the benefits of fracking and exaggerate the number of jobs that it produces. In one multistate peer-reviewed study, the industry claimed 31 jobs were created per well, but in reality, the number was four. A large percentage of jobs go to out-of-state workers, and more and more oil and gas drilling jobs are being replaced with automation.

But there is much more to the whole story. There are also significant social and
environmental costs. With a large influx of workers in fracking communities, there are documented increases in crime rates including: assault, drug abuse, drunk driving, and crimes against women. Social costs also include the straining of police, emergency services, and municipal workers to handle road damage, noise, air pollution and odor complaints. And, the loss of affordable housing may result in more homelessness in our city and county.

Fear of hazardous materials used in and generated by fracking reduces property values, which means fewer tax dollars for the county. Profits flow to corporations and people living elsewhere, as well as out-of-state workers who leave for the next job, while residents get stuck with lasting environmental degradation, health concerns, and unsightly structures.

In 2017, CSU researchers Loomis and Haefele attempted to quantify the costs of and benefits of fracking. They found that the long term costs outweighed benefits. These costs were dominated by health damage from air pollution, greenhouse gas emissions, wildlife habitat fragmentation, and pollution of private drinking water wells. They also found that fracking damaged community aesthetics, diminished open spaces, and caused seismic activity. It also hurts livestock.

Between 2001 and 2013, CSU researchers Opsal and Shelley report that Colorado citizens filed 2,444 complaints about the oil and gas industry with the state about harmful effects that were considered “extensive and complex,” not short-lived or isolated.

Now is the time for us to assess the costs versus the benefits.

October 15, 2019

My family moved to Loveland 18 years ago when my husband retired and our eldest daughter started attending CSU. The sky was blue in 2002 as we traveled West leaving Long Island in our Dodge Minivan looking forward to starting a new chapter in all our lives in the big wild west. For the first 8 years we thought we had reached paradise but then the fracking industry started closing in and the white haze appeared on/off over the Rocky Mountains out our window. Today, it is a rare occasion to have a clear blue sky. My granddaughter (age 5) has chronic asthma, even our dog (Zoey) was diagnosed with asthma, my husband has burning eye syndrome and the rest of us are healthy but uncertain what the future will bring. We mistakenly thought we were headed to a cleaner, healthier environment leaving NY ... we were wrong. If it weren't for the fact that my granddaughter has to stay within 50 miles of her divorced parents, we all, once again, would be headed to a less polluted state (if that exists in today's environment). PLEASE NO MORE FRACKING ACTIVITY AROUND AND IN CITIES ... our water, our air, our children's health and future depend on the decisions you make going forward! Support clean air, clean water and a clean planet. Thank you

October 18, 2019

As vice president of Foothills Audubon Club, I feel the protection of birds is not being addressed in the new land use regulations for oil and gas development. To protect Larimer County's raptors, I am asking the Larimer Oil and Gas Task Force to include CPW’s guidelines on raptor buffer zones in the new regulations. These guidelines can be found.
at https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/RaptorBufferGuidelines2008.pdf It is recommended that there be a 1/2 mile buffer from bald eagle, golden eagle, osprey, ferruginous hawk, red tailed hawk, Swainson's hawk, peregrine falcon, prairie falcon and northern goshawk nests and winter roosts to best protect them from oil and gas activity. It should be stipulated that roads, pipelines, well pads, etc would not be allowed in these buffer zones. Burrowing owls, listed as a threatened species in Colorado, should have no human encroachment within 150 feet of the nest site from March 15 through October 31, including no eradication of prairie dogs and their burrows in the nest area during this time. These protections will necessitate wildlife surveys, which should be conducted by qualified independent consultants approved by the County, using accepted and approved protocols, and costs paid by the applicant.

I thank you for your consideration of my comment.

October 21, 2019
I am a resident of Larimer County. We do not own the mineral rights to our property. I know that owners of the mineral rights have the legal authority to extract oil and gas from beneath my property. It seems that since the invention of horizontal drilling it would not be necessary to drill close to homes and yet as I drive around the county, I often see drilling rigs very near residences. I have read that people living near drilling rigs have more health issues than other people. I am hoping that this issue can be resolved in a way that protects residence from illness as the owners of mineral rights are allowed to access their oil and gas.

October 21, 2019
After studying this issue extensively, I am of the firm belief that fracking and Oil and Gas wells should not be anywhere near where people gather or live. I know we still need oil and gas, but the wells are too close, thus creating an environmental concern. We do not know enough about the long term effects of the particulates in the air on our bodies and what we know of the short term effects is enough to deny further permits of any more wells at this point. We also know that water leaching into the water table from fracking is dangerous.

I equate this with the opioid and tobacco crisis where it was easiest to ignore the growing body of evidence that these are bad for us. Let's NOT make the same mistakes with Oil and Gas wells. Our air quality on the front range is already considered serious. Please hold off on granting any new permits.

October 24, 2019
I am concerned that fracking is too close to schools and homes. I would like that the county limits how close they can build to homes and schools. I do realize this industry is needed and important to Colorado however they do need to be regulated. thank you

November 3, 2019
Suggestions and additions for Oil and Gas Rules for Larimer County, Colorado

The “Larimer County's proposed oil and gas regulations specify that drilling sites . . . state that the county can inspect operations and revoke permits if operators are not following the rules.” How would the County know if drilling site operators were in violation of the rules without unscheduled inspection of sites? In the past there has not been enough inspectors or money for inspection of sites. I suggest that the oil and gas companies be charged a large enough sum of money to cover the cost of inspections to protect people and the environment. Perhaps they will invest in safe operations for
the benefit of their workers and the public. These commitments need to be put in writing so there are not loopholes. Otherwise there really are no protections for our communities.

“The draft rules specify that ‘to the extent practicable’ they will require operators to demonstrate how they will ‘mitigate any negative impacts.’ ” It will likely not be practicable to mitigate all negative impacts, but it would be necessary to protect the health of people and health of the environment regardless of the cost to the oil and gas industry to do so. It is important to write into the regulations requirements for mitigating negative impacts of oil and gas operations. The Larimer County Commissioners should not grant a special-review permit to the oil and gas operators unless they agree to abide by the established regulations.

The Larimer County Commissioners should vote on whether to grant or deny a special-review permit before approval from the Colorado Oil and Gas Conservation Commission is asked for their approval. These issues directly affect the health and environment of people in our communities and community voices should be heard first.

The words, “unless the application demonstrates that it is economically infeasible or impractical,” should not be included in any of the rules. This is a loophole big enough to allow the oil and gas industry to get around preserving the health and environment. The money spent by the public to counter damage caused by the oil and gas industry puts the burden of economic infeasibility on the public. Leak and spill detection by the public or oil and gas operators should be reported to the Larimer County Sheriff and the Larimer County Commissioners immediately. In addition to the 23 chemicals that may not be used within the oil and gas operations, any chemical used in oil and gas operations should show that it does not harm humans or the environment. The oil and gas operators should pay for any human and environmental damages caused by earthquakes related to oil and gas operations.

There needs to be section concerning setbacks for bird nests; particularly raptors. These nests are very important for the sustainability of birds on the northern front range and should always be protected, not just when there are nestlings. Human activity can cause the birds to abandon the nest and they are running out of places to go.

As an observation, it truly appears the oil and gas industry is being singled out in reference to impacts of the equipment and process. As an example, I currently reside less than 1000 ft from a large housing development. I cannot even hear my tablet at full volume during morning coffee due to the construction noise including tractor trailers, nail guns, reverse beepers, saws, and ground moving equipment. Also, we have very high levels of Radon in our area, most of our homes have mitigation systems, and surely the construction of pipelines, foundations, and roads is releasing a great
deal of this into the air for the workers and us close proximity home owners. Yet, I understand this will be temporary (probably two years, approximately 1.5 years more then it takes an oil and gas rig to finish) and I understand its for the good of the community, jobs, housing values, and the growth of our area. I also understand regulations and monitoring are in place to insure any side affects are indeed at most, temporary. SO, it seems very confusing why politicians and extremists are clearly targeting one of our most valuable industries in this area, but not any of the comparable industries causing more disruption and side effects than oil and gas does. If we are going to take on what we feel are issues such as these, its only fair to the entire community to put our efforts towards all industries that are possibly contributing to these perceived issues. Otherwise its an obvious bias against one industry.

**November 11, 2019**

These regulations mimic the generalized language that is appropriate for statewide regulations, but entirely inappropriate for local jurisdictions. Our unique situation--including the fact that we are slowly being poisoned (see urls below) by air pollution which can be traced directly to oil and gas operations--requires that we develop our own customized regulations. We don't have to "reinvent the wheel," but we do need to improve it and make it so it will run smoothly on our own terrain.

**November 13, 2019**

Allowing any drilling (fracking) at all in Larimer County flies in the face of the mountain of recent evidence that suggests otherwise. Specifically:

1. Our air quality is rated F by the EPA. People in Larimer County are suffering due to air contamination caused equally by motor vehicles and existing wells in other places. This will get worse if we pollute our own county. Please remember that we receive tax dollars based on Larimer County's being a destination for its natural beauty and recreational opportunities.

2. Renewable energy sources are now cheaper and more sustainable than fracking for fossil fuels. This economic reason alone should motivate people who don't appear to yet understand the many real health and safety dangers of fracking.

3. Fracking ruins neighborhoods through noise, excessive vibration, road wear and tear, heavy truck traffic, and chemical exposure, all of which lower property values. People who live near fracking have rights too.

4. It is a myth that fracking creates long-term jobs and economic prosperity. Drillers migrate from one fracking operation to the next. Due to today's glut of oil, abandoned wells left by companies that go bankrupt can cost taxpayers millions to cap.

5. There is no way to safely store the millions of gallons of water that fracking requires. It is permanently contaminated and removed from the hydrologic cycle that normally returns water to us.

Please consider the science, the facts, and the will of the people who have carefully studied this issue in developing new regulations that look to the future health and safety of our residents.

**November 14, 2019**

Please do not allow fracking to continue. There is no need for it now that renewable energy is more economically feasible. Our health and natural resources need to be preserved and protected.
<table>
<thead>
<tr>
<th>Date</th>
<th>Text</th>
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<tr>
<td>November 18, 2019</td>
<td>As a person who believes in a higher power, it is sad to see what fracking is doing to this beautiful planet and every living thing that depends on it to survive. Please do not let any more fracking take place within Larimer County.</td>
</tr>
<tr>
<td>November 19, 2019</td>
<td>I would like to share with you my comments on the first draft of Larimer County’s Oil and Gas Regulations. Suffice it to say that I am appalled by the vague, inaccurate, and wishy-washy language in the first draft. I have attached citations from those regulations which are in direct conflict with Senate Bill 19-181. Cost effectiveness and technical feasibility will be removed from the Colorado Oil and Gas Conservation Commission (COGCC) rules, according to SB 19-181, and therefore the local regulations cannot be less stringent. The use of “strongly encouraged” is equally unacceptable, and it is clear those words should be replaced by “required.” And how will the applicant demonstrate “financial capacity” (Section U, page seven), and how much liability environmental liability insurance is required (Section U, page seven). Under 17.8, C, what is meant by “financial security”? Again, and again, the language is vague and very favorable to the industry. That is not what SB 19-181 is all about. So please make sure that these regulations are strengthened to conform with State law and, to the best of your abilities, to conform to anticipated COGCC regulations. Asking the fox to guard the hen house is never a good idea. Nonetheless, the draft of regulations for oil and gas development in Larimer County depends very heavily on this flawed approach. -In every instance where the words “minimize” or “reasonable” are used, the county is essentially ceding its authority to set specific standards. - The same can be said for the euphemistic phrase “unless the application demonstrates that it is economically infeasible or impractical...” This is a free pass that allows operators to increase profits at the expense of public welfare. -The semi-annual leak detection and repair inspections cited in section 17.3 C1 should be conducted by an outside party not the industry. -There is no mention in section 17.3 F of who will be measuring decibel levels to assure that the given standards are respected. Is this a continuing monitoring system? It should be. - Section 17.4 is almost entirely predicated on the assumption that a nicely phrased request will be met with ready compliance. This seems naïve. -And in section 17.5 there is a long list of plans that are to be provided to the county but the required content of those plans is not specified. The oil and gas industry has been granted free rein through legal codes that allow them to call the shots. We are only beginning to experience the long term costs of these policies. I would encourage the county to fulfill its mission to protect and promote “the health, safety, and general welfare of the residents and environment of the County.” We need regulations that clearly and with exact, enforceable language put public welfare over private gain.</td>
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| November 20, 2019  | Basic human rights named by the United Nations and many other local and global organizations include the right to a secure life, clean air, clean water, housing,
sanitation; property, & mental and physical health. We know our County Commissioners have an obligation and a commitment to a safe, clean, and sustainable Larimer County. Hydraulic fracturing is a clear violation basic human rights.

It poses risks to air quality including chemical processes used in drilling and wastewater, dangerous emissions of methane and other gases. Thousands of truck trips expose people to diesel particulates as well as to noise and light pollution. Benzene and other air pollutants put people at risk for adverse health effects including asthma, lung cancer, diabetes, stroke, and heart attacks. Vulnerable populations – infants, children, the elderly, cancer survivors, & those with compromised immune systems – are at greatest risk. A recent multi-year scientific CO study found elevated risk of nosebleeds, headaches, and dizziness among people living between 500 and 2,000 feet of drilling sites.

Each fracking operation uses huge amounts of trucked in fresh water. Much of this “used” water will remain underground, permanently removed from the earth’s hydrologic cycle. Wastewater, or “flowback,” contains hydrocarbons, heavy metals, radioactive materials, & a range of dangerous additives. As hazardous waste it requires special handling, but there is no clear agreement about how best to dispose of it. Removing millions of gallons of fresh water each year from future use, particularly given the increasing scarcity of fresh water makes no sense.

We often talk about the property rights of individuals to the minerals on or under their land. But what about the rights of people whose enjoyment of their property has been compromised by fracking equipment, noise, and/or contaminants? Loss of property value due to smells, sounds, contamination, or natural beauty robs these people of their property values. It is stealing from them.

Hydraulic fracturing is one of the most controversial industrial practices of our time. Were Larimer County to stop fracking now, we would be in good company along with the states of Florida, Vermont, New York, Maryland, Washington, Oregon, and Hawaii; parts of California and Minnesota; the provinces of Quebec, Prince Edward Island, Newfoundland, Labrador, and New Brunswick in Canada; Tasmania in Australia, and entire countries such as France, Wales, Northern Ireland, Bulgaria, Luxembourg, Uruguay, and Germany. As more research appears, the list grows.

Larimer County can still be on the right side of history on this issue. There is still time if we act now to stop fracking and concentrate on renewable energy resources instead. Thank you.

November 21, 2019

1. recent article in journal "Environmental Science and Technology" 3/2018, authored by John Adgate and Lisa McKenzie of Colorado School of Public Health, states that even at 500' from well being fracked, the exposure to cancer causing benzene is 8 times EPA safe limit. No mention in draft for Larimer County land use rules for O&G harvesting on considerations for increasing setbacks from homes.

2. With the level of expertise in health concerns with hydraulic fracturing at Colorado School of Public Health, why no representatives on public committee working on rules?

3. No mention either of adverse effects of continuing to burn fossil fuels on climate change and the serious effects on public health. Harvesting and burning fossil fuels adds CO2, ozone, particulates which accelerates climate change and adds to
November 26, 2019

I would like to share with you my comments on the first draft of Larimer County’s Oil and Gas Regulations. Suffice it to say that I am appalled by the vague, inaccurate, and wishy-washy language in the first draft.

I have attached citations from those regulations which are in direct conflict with Senate Bill 19-181. Cost effectiveness and technical feasibility will be removed from the Colorado Oil and Gas Conservation Commission (COGCC) rules, according to SB 19-181, and therefore the local regulations cannot be less stringent.

The use of “strongly encouraged” is equally unacceptable, and it is clear those words should be replaced by “required.” And how will the applicant demonstrate “financial capacity” (Section U, page seven), and how much liability environmental liability insurance is required (Section U, page seven). Under 17.8, C, what is meant by “financial security”?

Again, and again, the language is vague and very favorable to the industry. That is not what SB 19-181 is all about. So please make sure that these regulations are strengthened to conform with State law and, to the best of your abilities, to conform to anticipated COGCC regulations.

Thank you for considering my comments.

Inaccurate and vague parts of Draft (Version 1) Larimer County Oil and Gas Regulations

Page one

17.1 – Intent and Purpose
   A. fourth line
   “To the extent practicable…”

   B, item 5
   “…indemnification and insurance as appropriate…”

17.2 - Required Process and Permits
   B, ii
   “Reasonable and necessary mitigation steps…”

Page two

17.3 – Standards Required for all Oil and Gas Facilities
   B. Air Quality

   Item 3. “… unless the application demonstrates that it is economically infeasible or impractical to utilize such a system.”

   Item 4. End section of first line - same as above (B3)

   Item 5. End section of first line – same as above (B3)

Page three
<table>
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<tr>
<th>Section</th>
<th>Item</th>
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<tbody>
<tr>
<td>C. Leak Detection and Repair</td>
<td>Item 3. “…unless technically or operationally infeasible.”</td>
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<tr>
<td>F. Noise</td>
<td>Item 5 “… for a reasonable period of time for completion of the project.”</td>
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<tr>
<td>G. Odors</td>
<td>Item 2 “including drilling, fracking, and flowback to the extent reasonably possible.”</td>
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<td>Item 4 “… we encourage the Operator to communicate the schedule/timing …”</td>
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<tr>
<td>K. Recycle, Reuse and disposal of Fluids</td>
<td>Item 1 “…shall be recycled, unless technically infeasible.”</td>
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<tr>
<td>T. Temporary Water Lines</td>
<td>Item 1 “Temporary waterlines shall be used, unless technically infeasible.”</td>
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17.4 Guidelines for Oil and Gas Developments

A. “Applications for oil and gas facilities are strongly encouraged to incorporate the following guidelines (best management practices).”

A.1. "Applicants are encouraged to:"

I just read the document submitted by LOGIC and the Larimer Alliance regarding the county draft for oil and gas regulations. LOGIC and the Larimer Alliance have provided an excellent resource! I fully support the suggestions they make and would encourage the county to give serious consideration to amending the current county draft accordingly. We want regulations that will set a gold standard for local regulation of oil and gas extraction, including precise language, comprehensive...
oversight, up to date use of technology, and full compliance with the mission mandate to protect public health, safety, the environment and wildlife.

In reviewing the draft land use regulations for oil and gas operations, I find the vague language or "unless clauses" troubling in that they create loopholes that industry lawyers would easily take advantage of. I believe that you as our elected officials are charged with protecting the individuals of the county over and above the profit seeking oil and gas industry. The will of the people should be your highest consideration. I currently have in my possession a lease for a pending permit for a proposed well that would drill 12 fracking wells through residential neighborhoods within the city of Loveland. I have not nor will I sign that lease but, if permitted, I will have no say. I am left powerless and can only hope that the county will adopt rules and regs that will give me the protection that I and many others in the county are asking for. Please strengthen the language in the rules and regs to give us those protections.

SB 19-181 is a just in time godsend to Larimer County. To save our air, water, and recreational lands I am asking County Commissioners to do the following:
First- Stop all drilling and permitting until the COGCC has completed its rule making and Larimer County has reviewed it and made its own modifications.
Second- Create an education campaign to inform residents of the actual social and health costs of fracking
Third- Install air monitoring equipment that is sensitive enough to accurately measure dangerous chemicals in the air, and coordinate with Boulder, Longmont, and other front range cities that already have this equipment to assess how wind patterns carry pollution that endangers us all.
Fourth- Insist on a half-mile or more setback for oil and gas drilling which is in line with newer studies on harm reduction
Fifth- Clean up the language in the draft standards that allows for ambiguity in interpretation. Let's be clear about our current and future health and safety.
Thank you.

November 28, 2019

I have been to two of the commission meetings for developing regulations. My belief is that the Commission should not be developing new oil and gas regulations until the state has concluded their regulations which will affect every county by developing a baseline. It seems to me it would prudent to not proceed further with Larimer County specific regulations until the State minimums are known.

I have followed the process of oil and gas development in Northern Colorado since 2012. Over these 8 years, I’ve observed a consistent lack of regard for the concerns of local communities and the override of residents’ rights to health and safety, due to an unholy alliance between the State of Colorado and the oil and gas industry. That is, until the passage of SB 181.

SB 181 is a first step to bring justice and sanity to the oil and gas exploitation of the Northern Front Range and give Colorado citizens a say in the invasive oil and gas development that is permanently altering our land, our health, and even our futures. However, we and our elected officials must make the promise of this bill a reality.

Many people I personally know have left the area because they could not stomach the idea of being poisoned here. After having seen what has happened since 2012, I believe it is a matter of time before we are identified as a "sacrifice zone". Imagine what that would do to our property values and the tax base of Front
My perception of the proposed county regulations, as drafted, is that (unfortunately) they are business as usual. First and foremost, adequate setback rules for well pads is something that has been needed to be addressed for a long time, but the public health data is slow to come.

Now, after a lengthy study, we know that the CDPHE has found significant health impacts up to 2000 feet from wells. Setbacks have been a contentious point between industry interests and the public since I first learned that setbacks were not based on health, but probably on the distance a firetruck would need to put out a fire a drill site. I’ve even personally heard an industry head say they would not live near a well pad. So, 2000 feet should be a new standard.

Where regulations could be spelled out specifically in the Larimer County regulations, the ambiguous, euphemistic language of the draft regulations allow loopholes that favor fossil fuel industry. They will override our health and safety. We’ve seen them do it many times. In this draft, there seems to little expression of prioritizing public health. I think acknowledgement of the new priorities for health, safety, and environment needs to be reflected in the regulations.

I would like to add a few other points regarding the County’s process in relation to the public: I first observed this orientation to the regulations at the first public open house when I saw the priorities list for developing the regulations. There was a complete mismatch between the public priorities and the task force’s priorities, reflecting what I have perceived as an imbalance of special oil and gas related interests on the task force vs. public health interests.

I would like to point out that that air quality as at the top of the list for public, whereas it was 5th or 6th on the list for the task force. That open house occurred before Larimer County moved into EPA’S designation as "Serious" in our non-attainment of air quality for ozone. This needs to be acknowledged and changed. Much of the poor air is coming from Weld County, but we must do what we can to protect our health. We do need transparency about air quality and water issues. People who live in this area must be better informed, so that they can choose to leave if they need to for their health.

Please do better by following the suggestions submitted on behalf of Larimer Alliance and the League for Oil and Gas Impacted Citizens. Thank you.

My main concern is about public health and safety from oil and gas operations. I was struck by difference of priorities between the public feedback and Oil and Gas Task force regarding air quality concerns at the last public forum. I request air quality be continuously monitored utilizing INSTAAR equipment currently being utilized in Boulder County. We need to know what types of emissions and their concentrations in our air, especially known carcinogens such as benzene, etc.

I suggest you provide a glossary of terms. For example, definitions of: flaring, venting, setbacks, reverse setbacks, flow lines, gathering lines, etc. in order to inform us laypeople.

I cannot find any mention of setbacks or reverse setbacks in the draft document. I
recommend at least a 2000-foot setback and/or reverse setback from homes, hospitals, schools, flood plains and water sources.

Need standards/reporting on amount and types of emissions released during “venting” incidents scheduled or unscheduled again the public should be notified in “real time” through there website and/or other emergency notification systems.

Please eliminate loophole phases including but not limited to: “economic feasibility”, “to the maximum extent practicable”, “where feasible”, “encouraged to”.

Below are my comments on specific sections in the draft document:
17.3.D As soon as the county authorities have been notified of the spill and/or emergency event, the public should be notified in “real time” through there website and/or other emergency notification systems.
17.3.N.d Suggest the coordinates of the abandoned wells be mapped and available to the public through the Larimer County website and the Planning and Zoning department to inform developers and real estate owners of the abandoned well.
17.4.A.1 Change the final words in the paragraph to “...required to” rather than “...encouraged to”

Thank you.

November 29, 2019
I am writing you to express my utmost concern that the full intent and purpose of SB-181 be duly upheld in Larimer County. As you must be aware, the Front Range has been out of ozone compliance since 2008; I have friends who suffer from asthma, and cannot go outside on bad air days. That is one, but one of the foremost, concerns: the poisoning of our air.

This needs to be addressed by continuous air quality monitoring, such as has been constructed at the Boulder Reservoir, and now in Longmont, using technology built and maintained by INSTAAR; see http://instaar.colorado.edu/arlr/boulder_reservoir.html

The data from such monitors needs to compiled and maintained with the expectation that it can be used in filing lawsuits against Weld County for poisoning the environment -- which must surely happen some day, and to which Larimer County should be a party.

For the remaining concerns I have, I urge you consider the recommendations made by the Larimer Alliance, which be found at: https://sites.google.com/view/larimeralliance/resources/logic-la-comments

As a concerned citizen, I have attended several BOCC meetings, and the public meetings by this Task Force; but I have not yet seen the kind of commitment and urgency that this situation demands. Climate change is not waiting: we need to be taking action on moving our economy to clean energy ASAP.

November 30, 2019
Mandatory/Verified Capping of all flow lines prior to allowing wellhead abandonment.
Chain of Ownership responsibility for wellheads (Financial responsibility by all owners for any damages due to wellhead or flowline failures)
Mandatory mapping and public knowledge of all wellheads and all associated flowlines especially those within city areas of influence
Currently abandoned wellheads inventoried, capped, and all associated flowlines removed.

I think Version 1 of the Oil and Gas regulations is specious. While on the surface the proposed rules seem okay, in reality they lack any real teeth. I want to see some hard and fast regulations. I want to see a setback of at least 2,000 feet. We know that oil and gas operations can cause human harm when conducted within this rage. Furthermore, first responders will not be able to help anyone within a blast radius of 2,000 feet if a major accident were to occur. Stop pandering to O & G interests and start standing up for the citizens of this community. It should not be about what is “economically infeasible or impractical” (section 17.3.B.3). Oil and gas operators must pay the cost, WHATEVER THE COST MAY BE, to ensure they are not ruining our air and water quality! Sorry, that is the cost of doing business in this county. If they don't like it, then they can leave. I would really like to see a moratorium on any new permitting until the COGCC has finalized its rule-making process so that we know what the new "floor" will be in terms of regulations. Furthermore, I want Larimer County to start using continuous air monitoring similar to what is being used at the Boulder Reservoir and in Longmont.

My Brother owned a home in Berthoud that had a operational oil well practically in his back yard. It was less than 300 feet from the back door of his house. They lived there for a decade, and raised two children with no health issues or any other problems. The media has over blown safety issues to get political attention. Air quality is a non-issue. The people of Colorado have already voted on this subject. No need for a hand full of politicians to dictate what the industry does in our county.

Larimer County's Draft Oil and Gas regulations are inconsistent with the intent and substance of SB19-181. SB19-181 rightly, and for the first time in Colorado history, prioritizes the protection of public health, safety, welfare, the environment, and wildlife resources over oil and gas development. It explicitly declines to predicate such protections upon considerations of economic feasibility, which in any case are hopelessly inadequate to consider the complex, full range of short and long-term economic impacts on public health, safety, welfare, the environment, and wildlife of continued and new oil and gas development.

On a detailed level:
Section 17.1 [intent and purpose] should therefore eliminate loopholes such as “to the maximum extent practicable” and “where feasible.”
Section 17.2 [Required Process and Permits] should include a public notice process supportive of informed, broad-based public participation, a requirement for public disclosure of all documentation required by the County, and should specify these required documents, which should include an independent analysis of health, safety, environmental, and financial risks.
Section 17.3 [Standards for all Oil and Gas Facilities] must include:
- A minimum required 2,000 foot setback from residences and other buildings used by people, as well as water bodies and other environmentally sensitive areas;
- Absolute compliance with and enforcement of all regulatory monitoring, emissions, and worker protection standards, best management practices, baseline air quality monitoring, and mandatory annual inspections for Leak Detection, Repair, Pressure testing, and any needed inspections, at all wells.
- Mandatory disclosure of leaks and spills to regulatory agencies, the public, and relevant researchers. Operations must be shut down until leaks are proven stopped, and spills cleaned up.
- Noise levels in non-industrially zoned sites must not exceed ambient noise by > 10 decibels in the day, and 3 decibels at night.
- A hotline must be established and staffed for public health and safety, nuisance, or environmental complaints.
- A post-closure Plan including compliance with State closure, plugging, abandonment, and marking requirements, plus State and County-mandated post-closure environmental monitoring.
- A surface and groundwater quality protection plan.
- GIS Mapping System, made available to the public, of:
  o All flow lines, transfer lines, and gathering lines, that are submitted to COGCC and relevant local agencies and development corporations, and made readily available to the public at large, and those in the market for buying a home or other building. New lines should have tracer wires to ensure detection.
  o All current and future UIC wells used or potentially intended for disposal of contaminated return flow wastewater, with overlays for current and potential fracking well locations.
  o Detailed hydrogeological and seismic maps.
- A plan identifying anticipated volume of water to be used, and where that water is expected to be obtained.
- A waste disposal plan that accounts for temporary storage and ultimate disposal of all waste, including flow-back waste, with anticipated volumes.
- A plan identifying trucking routes and anticipated number of trucks needed for both received water for fracking, and removal of flowback waste.
- Integration of mapping from existing fracking or proposed fracking operations with existing and proposed water and sewer pipelines, aquifer and surface water body locations, and existing and proposed developments.
- Prohibition of flaring except during emergencies or other unusual conditions;
- Best available technologies and best management practices;
- Section 17.4 [Guidelines for Oil and Gas Development]
- There should be a moratorium on approving additional fracking permits until SB19-181 regulations are in place.
- There should be a moratorium on additional wells until cumulative impacts from existing and potential new fracking operations are analyzed w.r.t. impacts including:
  o Meeting local and Regional AQ standards;
  o Meeting local and State GHG reduction and renewable, non-carbon energy transition goals;
  o Potential and existing seismic impacts and threatened resources including dams and pipelines;
  o Impacts on surface and groundwater resources;
  o Impacts on open lands and wildlife resources;
  o Comprehensive epidemiology studies of known endpoints or markers of human and animal health impacts in response to known carcinogens and toxins like benzene, commonly released from fracking operations;
  o Comprehensive socioeconomic impacts of continued O&G development in comparison to non-carbon energy sources, including impacts on: housing values and quality of life, the slowing of CO’s and Fort Collins’ clean energy transition and GHG reduction goals, and the socioeconomic, environmental and public health impacts of exacerbating global warming. These impacts in Colorado and Larimer County have been felt already in an increase in frequency and intensity of wild-fires, destruction of mountain forests by insects not checked by sufficiently cold
winters, air and water quality impacts, depletion and earlier melting of snow packs which decreases summer water supplies, increasing frequency and intensity of heat-waves, droughts, and average temperatures, and accompanying increases in ozone, contributing to increases in respiratory disease and tropical diseases like West Nile.

On a macro level, there are clearly many public health, safety, economic and environmental reasons for, at a minimum, putting a moratorium on new fracking wells in Colorado until such a time as the regulations for SB19-181 are written and implemented. New York State banned fracking in 2015 on the basis of 6 years of synthesis and analysis of health studies and environmental research by leading researchers and institutions. The NY State Commissioner of Health concluded that, after reviewing the evidence, he wouldn’t let his own family live near a fracking site, and could not in good conscience impose this on other families. Physicians for Social Responsibility’s 2019 Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking, reviewed over 1500 reports of credibly demonstrated impacts on public health, water contamination, air pollution, inherent engineering problems, as well as abandoned wells, pipeline leaks, seismic risks, and fracking’s large contribution to accelerating climate change since 2006 due to methane.

Although the immediate health and safety risks of fracking are now inescapably obvious and well documented, and a flashpoint among concerned and affected citizens throughout Colorado and the nation, global warming somehow remains an 800-pound gorilla in many rooms, somehow invisible to many seemingly oblivious elected officials/decision-makers. How is it possible to ignore that anthropogenic climate change is a real phenomenon, already being experienced by millions, including in Colorado, and if not mitigated it will cause terrible suffering and destruction all over the world this century and beyond? How is it possible to ignore the evidence all around us, and the science that shows we have only about 10 years to change course drastically?

An October 8, 2018 report from the Intergovernmental Panel on Climate Change tells us the consensus of 97% of climate scientists: we can still avert some of the most catastrophic consequences of climate change by limiting global average warming to 1.5 degrees C, but ONLY IF we abandon coal and other fossil fuels in the next decade or two at most. The Emissions Gap Report of November 26, 2019, states that globally, WE MUST NOW REDUCE OUR GHG EMISSIONS 7.6% EVERY YEAR FOR THE NEXT DECADE starting in 2020, or lose humanity’s chance to limit global average temperature increase to 1.5C. (GHGs have been increasing globally every year for the past decade on average by 1.5%.) Nationally, and for Colorado to do our part, we need to reduce GHG pollution about 25% by 2025, 50% by 2030, and to net zero by 2050.

Methane from fracking plays an additional bad actor role in increasing GHG emissions. Researchers from Cornell (Howarth et al, August, 2019) have shown that the sharp increase in methane in the past decade has a “chemical footprint” from shale gas fracking, 89% of which has occurred in North America. Methane traps heat 84X better than CO2 over a 20-year period, and scientists estimate it is responsible for about 25% of current global warming. WE CANNOT LIMIT GLOBAL WARMING TO A LESS DIRE 1.5 degrees C IF WE KEEP BURNING FOSSIL FUELS, AND INCREASING METHANE RELEASES FROM FRACKING. WE THEREFORE CANNOT PERMIT NEW FRACKING Wells ON THE ONE
HAND, WHILE TRYING TO REDUCE GHG EMISSIONS AND ADDRESS CLIMATE CHANGE ON THE OTHER HAND. TO DO SO IS TO MAKE A MOCKERY OF PROTECTING HUMAN HEALTH AND THE ENVIRONMENT FROM THE WORST THREAT TO BOTH.

Our air quality is bad and it's deteriorating as O&G extraction increases to our easy. Potential groundwater contamination, and the costs of closing down drilling sites which will be borne by us taxpayers, are also serious concerns. Are we doing all we can to protect Loveland’s residents — despite the failed vote on a moratorium on permits and despite the COGCC?

My biggest concern about the First Draft of the proposed revision to Land Use Code for oil and gas projects is the lack of a rigid setback requirement for siting near residential, high occupancy buildings, wetlands, and critical ecosystems. The atmospheric effects closer than 2000 feet are marked, especially for anyone with any kind of compromised respiratory or endocrine system. Even folks with relatively normal functions find effects from nausea to nosebleeds in the event of any venting close at hand. The other concern is a safety zone in the event of any catastrophic failure and/or blast in an oil and gas development. I have a secondary concern that the language of desired operating or equipment requirements is too vague. The COGCC in revising the statewide regulations avoids compromising language around technical and economic feasibility. Larimer County’s regulations should be at least as tight as anything the state ends up formulating, if not more so. . .

December 4, 2019

I have read the Larimer Alliance and LOGIC response and recommendations to Larimer County’s proposed Oil and Gas regulations. I agree with the response and recommendations put forth by the Larimer Alliance and LOGIC. I have a couple of issues I will highlight although I agree with all the recommendations. I think all of the recommendations are important for the health and safety of our citizens and for a sustainable environment and wildlife protection.

We need a strong process for accountability that keeps the burden of Oil and Gas impacts from costing taxpayers. We also need to hold the oil and gas industry accountable to the health and safety of Larimer County residents not to the industry's profits.

As part of the health and safety of residents, we need to regulate the industry to a high standard for air quality. Southern Larimer County is in Colorado's 8-hour ozone non-attainment area. Oil and Gas development is a top contributor of greenhouse gas emissions. Citizens deserve local regulatory measures that prioritize their public health. Additionally stringent air quality monitoring programs need to be put in place.

Thank you.

December 12, 2019

I strongly encourage the county to take full advantage of Colorado’s new SB-181 to implement oil and gas regulations that place public and environmental health as THE TOP PRIORITY. Short term revenue from out-of-state oil producers is not worth the long term cost in public health, pollution or environmental degradation that Larimer county will be dealing with for decades after the wells are no longer pumping. Ideally, this would mean a complete moratorium of current drilling. The next best option would be a moratorium on the approval of new permits. Failing either of those, the next best thing is to stringent regulations that place health and environmental protection at the forefront of the new drilling regulations. Such protections should include, at minimum, a 2000 ft set-back from homes and high occupancy buildings, thorough environmental impact analysis before any drilling.
occurs, full public disclosure of the planned impacts of drilling, and the ability of the county to deny or revoke permits due to excessive negative impacts. Additionally, I agree with the Larimer Alliance's suggestion to "eliminate loophole language such as "to the maximum extent practicable" and "where feasible", and replace the term "encourage" with "require" compliance with regulations." As a young, concerned citizen of Larimer county who will have to live with the consequences of drilling for the next several decades, please take my comments into due consideration.

December 13, 2019

I support the strictest regulation possible of the fossil fuel industry. I am extremely concerned about the environmental implications of further oil/gas development, as well implications for public health and safety. I do not support any new or current drilling operations. I love our natural lands as they are. I love living here. As a concerned citizen under the age of 30, I speak as someone who has to live with the consequences of pollution in the air/water, and general environmental degradation for decades to come. Oil and gas developers are notorious for downplaying the risks of their industry. Please don't be lulled by false promises. I respectfully request full public disclosure of all proposed drilling operations, as well as retained authority on the part of the county to revoke any drilling permit in the face of excessive negative impact. Of course, full environmental impact assessment is essential prior to approval in the first place. Please look to the Larimer Alliance for guidance in your decision-making, especially their suggestion to "eliminate loophole language such as 'to the maximum extent practicable' and 'where feasible', and replace the term 'encourage' with 'require' regarding compliance with regulations." Putting this kind of pressure on the energy industry is critical to drive human innovation towards sustainable alternatives. We need to send a clear message as consumers and as a community.

December 14, 2019

Please take full advantage of Colorado's new SB-181 to implement oil and gas regulations that place public and environmental health as THE TOP PRIORITY.

"I support the strictest regulation possible of the fossil fuel industry. I do not support any new or current drilling operations. I love living here, and as an outdoor enthusiast, a clean environment is important. Oil and gas developers are notorious for downplaying the risks and tout the economic benefits of jobs. Unfortunately, many of the jobs are temporary while the consequences of pollution are permanent.

I respectfully request full public disclosure of all proposed drilling operations, as well as retained authority on the part of the county to revoke any drilling permit in the face of excessive negative impact. Of course, full environmental impact assessment is essential prior to approval in the first place. Please don't be lulled by illusory promises. look to the Larimer Alliance for guidance in your decision-making, especially their suggestion to "eliminate loophole language such as 'to the maximum extent practicable' and 'where feasible', and replace the term 'encourage' with 'require' regarding compliance with regulations." I love living in northern Colorado. Please look to sustainable alternative. We need to protect our community and way of life.
November Survey Monkey Questionnaire Results
#1

Collector: Web Link 1 (Web Link)
Started: Thursday, November 14, 2019 10:22:29 AM
Last Modified: Thursday, November 14, 2019 11:35:43 AM
Time Spent: 01:13:13
IP Address: 73.243.83.218

Page 1

Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?  
No

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1 - Intent and Purpose?  
No

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2 - Required Process and Permits?  
Should there be a new zoning in Larimer County for oil/gas wells and well production sites? Future zoning could change, but a record of this zoning must be maintained so that future purchasers would know the history of this land.

Q4 Please share your opinion on 17.3 - Standards Required for all Oil and Gas Facilities.

- General: Generally Like (Needs Clarification or Improvement)
- Air Quality: Generally Like (Needs Clarification or Improvement)
- Leak Detection and Repair: Generally Like (Needs Clarification or Improvement)
- Spills and Releases: Dislike
- Well Liquids Unloading: Dislike
- Noise: Generally Like (Needs Clarification or Improvement)
- Odors: Dislike
- Dust: Generally Like (Needs Clarification or Improvement)
- Access: Dislike
- Chemical Handling: Generally Like (Needs Clarification or Improvement)
- Recycle, Reuse and Disposal of Fluids: Generally Like (Needs Clarification or Improvement)
- Water Bodies: Dislike
- Visual: Generally Like (Needs Clarification or Improvement)
- Well Plugging and Abandonment: Dislike
- Flammable Material: Like Where it is Headed (No Substantive Change)
- Waste Disposal: Generally Like (Needs Clarification or Improvement)
- Removal of Equipment: Like Where it is Headed (No Substantive Change)
- Maintenance of machinery: Generally Like (Needs Clarification or Improvement)
- Flow Lines, Transfer Lines and Gathering Lines: Dislike
- Temporary Water lines: Generally Like (Needs Clarification or Improvement)
- Financial Assurance: Dislike
Do you have detailed suggestions to add, remove or modify anything in Section 17.3. - Standards Required for all Oil and Gas Facilities?

Not only the applicant, but all successors or assignees must follow these same standards.
Air quality standards must be met starting at day 1 and continuing for the life of the site.
Not just the surface must be restored, but underground to an appropriate distance, perhaps 20 feet.
Even if cleanup is deferred the applicant is still responsible and must respond immediately to initiate cleanup.
Even if technically infeasible to fix, the leak must be stopped immediately.
Technically or operationally infeasible is an ill defined term and means different levels of competence to different operators. Depending upon where this term is used, subsequent action halting the detriment to health or the environment must be defined when the operator makes that claim.
All emissions during well unloading must be captured.
Construction noise must be contained if it exceeds noise levels for zoning in the adjacent properties.
Odor must be continually monitored. The goal is to respond and correct before a complaint can be registered.
The access must be monitored at least daily to ensure that no trackout exists on public roads, sidewalks or right of way. Any trackout must be swept up as soon as it is observed.
All operating equipment must be properly balanced so that ground transmission of noise from drilling and operations is minimized.
If Drilling, completion flowback and produced fluids are not recycled they must be transported to a hazardous waste facility approved for handling that waste.
Proper documentation needs to be used to show that no waste in lost enroute.
Ground water monitoring wells should be encouraged. Any operational water wells located within 1000 feet of the operation must be sampled, beginning one week before start of activity, on a weekly basis to ensure that no change in water quality is observed.
It is the responsibility of all on site employees to maintain the trash and debris free site.
Maintenance involving any fluid (oil, ATF, brake, hydraulic, …) must be performed over an impervious surface. Any fluid spills from maintenance must be cleaned immediately. Appropriate cleanup material must be available on site if maintenance or fueling is performed.
Applicant must maintain environmental insurance in perpetuity for failure to follow all standards when operating or closing down operations.

Do you have detailed suggestions to add, remove or modify anything in Section 17.4. - Guidelines for Oil and Gas Facilities?

Drilling fluids should reference the same list of prohibited chemicals noted in Section 17.3 for fracturing fluid.

Do you have detailed suggestions to add, remove or modify anything in Section 17.5. - Application Requirements?

A trackout plan should also be required.

Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals?

Respondent skipped this question

Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections?

Property inspection is allowed 24 hours per day on any day.
Following a spill, air quality or water quality violation the property must pass inspection before being allowed to restart operation.

Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation?

Respondent skipped this question

Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?

Respondent skipped this question

Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions?

Respondent skipped this question

Do you have any other suggestions for topics to add?

Respondent skipped this question

Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?

Name
Marc Brown
Email Address
marcgbrown@comcast.net
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?
No, If so what is the name of the Organization?: Ms.

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1 - Intent and Purpose?
No

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2 - Required Process and Permits?
No

Q4 Please share your opinion on 17.3 - Standards Required for all Oil and Gas Facilities.

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Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3 - Standards Required for all Oil and Gas Facilities?

Many sections are too vague using language such as "...unless economically infeasible or impractical" (B.3, 4, and 5); "unless technically of operationally infeasible" (C.3); "Best management practices" (E and H.1) "to the extent reasonably possible" (G.2), "unless technically infeasible" (K.1, T.1); "We encourage..." (G.4) Language should be specific allowing for no interpretation or room for debate. If it is not feasible, the facility should not be operating. What exactly are "best management practices"? "strongly encouraged...should be changed to require definite practices not open to interpretation.

Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4 - Guidelines for Oil and Gas Facilities?

Guidelines for O and G development applications are "strongly encouraged to incorporate..." These best practices should be spelled out and required. phrases such as "...unless technically infeasible" should not be part of these regulations. If it isn't technically feasible, the facility should not exist.
Q7 Do you have detailed suggestions to add, remove or modify anything in Section 17.5. - Application Requirements?

The phrase “when relevant” should not be part of these regulations. This allows too much interpretation.

Q8 Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals?

no

Q9 Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections?

no

Q10 Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation?

no

Q11 Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?

no

Q12 Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions?

no

Q13 Do you have any other suggestions for topics to add?

COGG setbacks are not adequate. I would like to see setback distances of 2000 feet from any “outside activity areas” or any buildings. This is a minimum safety setback.

Q14 Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?

Name Marion Cox
Email Address cox.mari@gmail.com
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?  
No

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1 - Intent and Purpose?  
no

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2 - Required Process and Permits?  
yes, B. ii. add and present and future welfare of people, animals and the environment.

Q4 Please share your opinion on 17.3 - Standards Required for all Oil and Gas Facilities.

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<td>Generally Like (Needs Clarification or Improvement)</td>
</tr>
<tr>
<td>Well Plugging and Abandonment</td>
<td>Dislike</td>
</tr>
<tr>
<td>Flammable Material</td>
<td>No Comment</td>
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<td>Temporary Water lines</td>
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<tr>
<td>Financial Assurance</td>
<td>No Comment</td>
</tr>
</tbody>
</table>

Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3 - Standards Required for all Oil and Gas Facilities?  

B.4. control by flare is hazardous to air quality and lights up the night sky  
G. 3. Odor complaints are serious, but the response system is too vague  
Where is the policy about concerns of ground vibrations, water disturbances and quakes?  
J. 2. If drilling is continued on an infrequent basis there should be a completion date set. How will the land be reclaimed? Specifically, plants and contours.  
N.1. Disclosure of abandoned well sites and flow lines needs to be public knowledge. How will people be informed in the future?

Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4 - Guidelines for Oil and Gas Facilities?  
no
Larimer County Oil and Gas Proposed Regulations

Q7 Do you have detailed suggestions to add, remove or modify anything in Section 17.5. - Application Requirements?

no

Q8 Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals?

no

Q9 Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections?

no

Q10 Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation?

no

Q11 Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?

no

Q12 Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions?

no

Q13 Do you have any other suggestions for topics to add?

What exactly is the method of notifying the public about new wells, leaks, mitigation, hazards, etc. ?

Q14 Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?

Name                     Teresa Jones
Email Address            teresajones@usa.net
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?  
No

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1 - Intent and Purpose?  
Respondent skipped this question

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2 - Required Process and Permits?  
Respondent skipped this question

Q4 Please share your opinion on 17.3 - Standards Required for all Oil and Gas Facilities.

<table>
<thead>
<tr>
<th>General</th>
<th>Dislike</th>
</tr>
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<td>Dislike</td>
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</tr>
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<td>Access</td>
<td>No Comment</td>
</tr>
<tr>
<td>Chemical Handling</td>
<td>Dislike</td>
</tr>
</tbody>
</table>

Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3 - Standards Required for all Oil and Gas Facilities?

17.3 A2-Oil and gas facilities need to be located to minimize impacts on residential neighborhoods and schools.
17.3 General comment on all sections—get rid of the language about "unless it is economically infeasible or impractical". Economics don't rule over health, environment and public safety.
17.3C Leak detection and repair needs to be more than semi annual—continuous monitoring should be required.
17.3D Why would remediation of spills/releases be deferred to COGCC?
17.3E How are emissions monitored during well liquid unloading?
17.3F Permissible noise level should take into account surrounding land use, especially if that is residential.
17.3J What is the process to verify chemical composition?

Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4 - Guidelines for Oil and Gas Facilities?  
Respondent skipped this question

Q7 Do you have detailed suggestions to add, remove or modify anything in Section 17.5 - Application Requirements?  
Respondent skipped this question

Q8 Do you have detailed suggestions to add, remove or modify anything in Section 17.6 - Appeals?  
Respondent skipped this question

Q9 Do you have detailed suggestions to add, remove or modify anything in Section 17.7 - Enforcement and Inspections?  
Respondent skipped this question
<table>
<thead>
<tr>
<th>Q10</th>
<th>Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation?</th>
<th>Respondent skipped this question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q11</td>
<td>Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?</td>
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</tr>
<tr>
<td>Q12</td>
<td>Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions?</td>
<td>Respondent skipped this question</td>
</tr>
<tr>
<td>Q13</td>
<td>Do you have any other suggestions for topics to add?</td>
<td>Have you looked at the Adams county regulations for guidance. I believe they are quite good.</td>
</tr>
<tr>
<td>Q14</td>
<td>Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Shelly Carroll</td>
<td></td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:shellycarroll@msn.com">shellycarroll@msn.com</a></td>
<td></td>
</tr>
</tbody>
</table>
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?  
No

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1 - Intent and Purpose?

It seems to me that Larimer County should encourage reuse of water to save fresh water sources. In this regard, Larimer County should encourage use of produced water as a fracking fluid. The way I read the proposed regs it looks like only fresh water can be used as a fracking fluid.

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2 - Required Process and Permits?

no

Q4 Please share your opinion on 17.3 - Standards Required for all Oil and Gas Facilities.

General
Air Quality
Leak Detection and Repair
Spills and Releases
Well Liquids Unloading
Noise
Odors
Dust
Access
Chemical Handling
Recycle, Reuse and Disposal of Fluids
Water Bodies
Visual

Generally Like (Needs Clarification or Improvement)

Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3 - Standards Required for all Oil and Gas Facilities?

Respondent skipped this question

Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4 - Guidelines for Oil and Gas Facilities?

Respondent skipped this question

Q7 Do you have detailed suggestions to add, remove or modify anything in Section 17.5 - Application Requirements?

Respondent skipped this question

Q8 Do you have detailed suggestions to add, remove or modify anything in Section 17.6 - Appeals?

Respondent skipped this question

Q9 Do you have detailed suggestions to add, remove or modify anything in Section 17.7 - Enforcement and Inspections?

Respondent skipped this question

Q10 Do you have detailed suggestions to add, remove or modify anything in Section 17.8 - Fees and Security for Reclamation?

Respondent skipped this question
<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tbody>
<tr>
<td>Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?</td>
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</tr>
<tr>
<td>Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?</td>
<td>Tommy Raye: <a href="mailto:tommy@watersupplyllc.com">tommy@watersupplyllc.com</a></td>
</tr>
</tbody>
</table>
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?

Yes, if so what is the name of the Organization?: Colorado Department of Public Health and Environment

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1. - Intent and Purpose?

Does the County just intend to establish regulations for drilling and production, or would the County also like to regulate hydraulic fracturing and flowback? If so, consider adding those terms to Section 17.1.

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2. - Required Process and Permits?

Respondent skipped this question

Q4 Please share your opinion on 17.3. - Standards Required for all Oil and Gas Facilities.

Respondent skipped this question

Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3. - Standards Required for all Oil and Gas Facilities?

Consider revising Section 17.3.A.2 to read “Oil and Gas facilities should be located to minimize impacts on public health, safety, welfare the environment and agricultural operations.”

Consider revising Section 17.3.A.2 to fully spell out and abbreviate Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (APCD). Also, the word “for” should be added to the following excerpt “and the rules and regulations promulgated by the AQCC [for] all applicable emission sources.”

Consider revising Section 17.3.A.4 to read “98% destruction [or] removal efficiency.” Manufacturer data is typically based on “destruction efficiency”. It’s best to be consistent with Air Quality Control Commission regulations and require operators to have the device meet 98% destruction or removal efficiency.

17.3.E- What do you mean by “at least 90% emissions when utilizing combustion to control venting shall be employed at all facilities”? Do you mean 90% emissions reduction, 90% destruction or removal efficiency? Why 90% and not 98%?

17.3.G- consider abbreviating CDPHE and AQCC because those terms should have already been spelled out fully in previous provisions.

Consider revising 17.3.H.4 to read “Unless otherwise approved by the County Health and Engineering Department, only water will be used for dust suppression activities within 300 feet of the ordinary high-water mark of any body of water.”

17.3.M.4.- 4. It appears “be installed” or some similar phrase is missing from this section “Fencing shall [be installed] for all the phases of an Oil and Gas facility development to ensure the security and visual aesthetics of the use.”

Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4. - Guidelines for Oil and Gas Facilities?

Consider revising 17.4.2.d. to read “Wipe down drill pipes as they exit the wellbore”. “Each time drilling operation ‘trips’ out of hole” is worded somewhat confusingly.

Consider revising 17.4.2.d. to read “manufacturer’s recommended specifications” because “specifications” is more encompassing than “levels”
| Q7 | Do you have detailed suggestions to add, remove or modify anything in Section 17.5. - Application Requirements? | Respondent skipped this question |
| Q8 | Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals? | Respondent skipped this question |
| Q9 | Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections? | Respondent skipped this question |
| Q10 | Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation? | Respondent skipped this question |
| Q11 | Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification? | Respondent skipped this question |
| Q12 | Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions? | Respondent skipped this question |
| Q13 | Do you have any other suggestions for topics to add? | Respondent skipped this question |
| Q14 | Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings? |
| Name | Sean Hackett |
| Email Address | sean.hackett@state.co.us |
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?  
No

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1 - Intent and Purpose?  
Yes, in Section A, the language "and reasonable" should be removed. The intent is health & safety first, regardless of the qualifier word "reasonable". Further "to the extent practical" should also be removed. This is also a qualifier and vague phrase that does not belong based on prioritizing health & safety as being the required outcome.

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2 - Required Process and Permits?  
Yes, "Reasonable and necessary mitigation steps have been taken" is again "light" language that reduces the goal of producing public health. This should state "REQUIRED mitigation steps have been taken..."

Q4 Please share your opinion on 17.3 - Standards Required for all Oil and Gas Facilities.  
General: No Comment  
Air Quality: Dislike  
Leak Detection and Repair: Dislike  
Spills and Releases: Dislike  
Well Liquids Unloading: Dislike  
Noise: Dislike  
Odors: Dislike  
Dust: Dislike  
Access: Dislike  
Chemical Handling: Dislike  
Recycle, Reuse and Disposal of Fluids: Dislike  
Water Bodies: Dislike  
Visual: Dislike  
Well Plugging and Abandonment: Dislike  
Flammable Material: Dislike  
Waste Disposal: Dislike  
Removal of Equipment: Dislike  
Maintenance of machinery: Dislike  
Flow Lines, Transfer Lines and Gathering Lines: Dislike  
Temporary Water lines: Dislike  
Financial Assurance: Dislike

Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3 - Standards Required for all Oil and Gas Facilities?  
All sub-sections that contain language such as "unless the application demonstrates that it is economically infeasible or impractical to utilize such a system.", "unless it is demonstrated by the application materials the utilization of such equipment is not economically feasible or practical.", "unless technically or operationally infeasible.", "unless technically infeasible." should be revised. Again, SB181 makes it clear that health & safety should be prioritized first. It is not appropriate, nor in line with this objective, to provide such easy "outs" as it is possible to say anything is economically practical. This in its current state is not acceptable. Spills should be reported immediately instead of waiting 24 hours.
Larimer County Oil and Gas Proposed Regulations

Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4. - Guidelines for Oil and Gas Facilities?

Again, there should be no such language as "unless it is technically infeasible." Anything could be framed as "technically infeasible". The requirement is human health & safety, environment first.

Q7 Do you have detailed suggestions to add, remove or modify anything in Section 17.5. - Application Requirements?

The reclamation plan should include a bond amount to ensure the land within the county is in fact restored regardless of the state of the opportunity at the time that this is required.

Q8 Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals?

Respondent skipped this question

Q9 Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections?

Respondent skipped this question

Q10 Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation?

Respondent skipped this question

Q11 Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?

Respondent skipped this question

Q12 Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions?

Respondent skipped this question

Q13 Do you have any other suggestions for topics to add?

Respondent skipped this question

Q14 Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?

Name  Kevin Krause
Email Address  kevkrause@gmail.com
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?

No.
If so what is the name of the Organization?:
I am submitting these comments independently.

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1 - Intent and Purpose?

A. Delete: "To the extent practicable" - not necessary and weaken the language
B.4. Add: "and wildlife habitat"
B.5. Delete: "as appropriate" - not necessary, as the rest of the phrase makes appropriateness obvious
B.6. Rewrite or delete - is vague and unenforceable

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2 - Required Process and Permits?

Why does this section not follow the same format as previous section? (17.1. A. then 1.; whereas 17.2 A. then a.)

Please put oil and gas activities in a dedicated Special Review section!

It makes a lot more sense to create a dedicated Special Review section for oil and gas activities, and would make compliance and enforcement more straightforward than the suggested referencing to other Code sections.

But, if this proposed language is kept then please INCLUDE:
* more public participation opportunities
* do not leave decision responsibility only to the planning director
* clarify the actual title of the referenced planning director

And
B.a.ii. Rephrase/clarify: "Reasonable and necessary mitigation" - if the County does not clearly define this statement it will be unenforceable, and potentially the subject of legal challenge
<table>
<thead>
<tr>
<th>Q4 Please share your opinion on 17.3. - Standards Required for all Oil and Gas Facilities.</th>
</tr>
</thead>
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Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3. - Standards Required for all Oil and Gas Facilities?
Larimer County Oil and Gas Proposed Regulations

A.1. Add "all" before applicable federal . . .

B.1. Change "The use?" to: "All facilities and operations"
B.1. Add "emissions" before "emission sources" - because they could be different
B.1. Add, at the end, and State and County health departments.
B.3. Delete: from "unless" to the end of the sentence - too vague and County has such authority under other sections
B.4. Delete: "or"
B.4. Delete from "unless" to end of sentence - vague and unenforceable. And, how would the County make sure determination other than the unsupported word of the operator?
B.4. Regarding flaring: The oil and gas industry has admitted that flaring is NOT necessary, except in limited emergency situations. Larimer County needs to clearly and definitively state that flaring is prohibited except in limited emergency situations AND define specifically what those emergency situations are.
B.5. Delete from "unless" to end of sentence - vague and unenforceable. This is another instance of allowing the industry to define its own standards - and I don't thing that's what the residents of Larimer County have in mind
B.7. Change "should" to "shall" - "Should" is a nonenforceable term
B.7.d. Add clarification of when "delay" shall occur (as opposed to "suspension") by adding: "if suspension would create unsafe conditions," and define difference between "suspend" and "delay"
B.7.e. Change "or" or "and"
B.7.f. Delete "will" and change "would" to "could"
C.1. Change or delete: “modern leak detection technologies and equipment” - vague and unenforceable, as well as being industry defined
C.1. Change or delete: “modern leak detection technologies and equipment” - vague and unenforceable, as well as being industry defined
E.1. Regarding "best management practices": As defined by whom? Currently this term is generally defined by the API in industry-friendly terms, and in many cases does not serve or benefit the health and safety of the general public or the environment. I do not believe the residents of Larimer County are eager to have the industry continue to define what keeps the rest of use safe!
F.1. Should the included weekend day be further defined as a day with operations are occurring in order for such analyses to accurately reflect the noise levels?
G.4. Delete "We encourage" and change to "The operator SHALL communicate . . . "
H.1. See above regarding “best management practices.”
H.3. Add that SDS shall be made available to the public, in a timely manner (please define what is timely), along with requiring written justification why the use of such is necessary, practical, and without less toxic alternative
I.1.c. Why is the County requiring the use of Magnesium Chloride when there are more environmentally-friendly methods of treatment?
I. Add new subsection 2. to cover operations occurring within road GID/taxing district and requiring a. notice to all households within the GID and b. permitting the GID to request that Magnesium Chloride not be used
J. Add new subsection 4. reserving to the County the right to add to the list in subsection 3. at any time as the County deems necessary to protect the health, safety, and welfare of the citizens and environment
K.1. How shall the fluids be “recycled”? K.1. & 3. “unless technically infeasible” is vague, unenforceable and allows interpretation to be industry-driven, rather than by the County
L.2. Delete “that are typically” - language without this qualifier does what the intent is AND allows the County to request unusual tests that could be critical
M.3. After “off-site” add “and upwards”
M.5. Change from “6 months” to “3 months, seasonal weather permitting”
N.1.d. Change “any” to “all” and “gathering or flow lines” to “gathering, flowlines, and pipelines”
Q.2. Sentence is repetitive
R.2. Add “contained” before “impervious” and define “storm events”
S.1. Change “of” to “or” and include “wildlife habitat in the list
S.2. This statement is confusing
S.3. “shall be provided” by whom? to whom? by when?
U.1. Change from “must demonstrate the financial capability” to “must provide proof of bonding, naming the County as the beneficiary sufficient to reclaim . . . ” and define “disturbed areas” - what constitutes a disturbed area, does such include the length of drill lines and pipelines?
Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4. - Guidelines for Oil and Gas Facilities?

A. This entire section encourages non-compliance by all the uses of encouragement; needs to firmly and definitively set forth the powers and authority that SB-181 has permitted local government, i.e., the County, instead of being so darn flaky!
A. Change "strongly encouraged to" to "shall" and delete "Where reasonably necessary"
A.1. Change "are encouraged" to "may be required to"
A.1.f. Elimination of flaring MUST be a REQUIREMENT in ALL cases, except in specifically defined emergencies
A.2. Change "are encouraged" to "may be required"
A.2.g. Define "green frac methods"
A.3. Change "are encouraged" to "may be required" and delete "unless technically infeasible"

Q7 Do you have detailed suggestions to add, remove or modify anything in Section 17.5. - Application Requirements?

Why does this list omit most of the plans recommened in section 5 of the September 25, 2019 handouts to the task force?
A. Regulations needs to set forth standards as to when these are relevant or language that gives the County specific authority to determine when they are relevant
A. Does this list of submittals include plans that protect the environment and environmental resources, e.g., protection of natural lands and wildlife habitat?

Q8 Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals?

Did not have the opportunity to review Code section 22, but request that appeals to oil and gas applications include more public input than typical appeals.

Q9 Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections?

A. Change "may" in second sentence to "shall"

Q10 Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation?

Standards in this section must include bonding (held by or naming the County as the sole beneficiary) sufficient to cover potential costs related to the ENTIRE operation - not just the pad - and ALL RISKS to the soil, air, water, and wildlife impacted or related thereto

Q11 Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?

Respondent skipped this question

Q12 Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions?

Respondent skipped this question
Q13 Do you have any other suggestions for topics to add?

1. Applicants should be required to cover all costs, including of
   1) the County review process, 2) all reports/consultations required by the County, and 3) security
   or bonding sufficient to cover all potential reclamation / remediation / abandonment costs from well pad to end of drilling lines and all associated pipelines from
   soil, air, water, wildlife, and human disruption

2. Should be an oil and gas-specific Special Review process, and that O&G SR should include:
   (1) Applicant requirement to engage with community prior to initiating SR requirements with the County
   (2) Surface agreements shall not be formalized until the applicant has completed SR
   (3) Applicants should be required to report all instances of non-compliance within the previous 10 years (and pending complaints) to staff during pre-application
   conference and to make such available to the public during the initial community engagement
   (4) Pre-application conference shall be required prior to initiation of application and SR process - to review expectations of applicant and mitigate any possibility of
   mis-communication; should also include County/applicant discussion of location, impacts, etc., and how such might be mitigated as part of application/SR
   (5) public engagement of prior notification of at least w weeks of all adjacent landowners and residents and businesses within one-half mile
       (a) after pre-application conference and prior to application and
       (b) during SR process in timely manner to allow County and applicant to make community-friendly amendments to application

3. Current SR process does not cover oil and gas specific issues that must be addressed to meet the standards and take full advantage of the powers granted
   local governments by SB-181. Examples include:
   (1) alternative sites
   (2) surface and groundwater protection / quality
   (3) open / natural lands, including:
       a. habitat and migration corridors
       b. natural and historical landmarks
       c. rare plants
       d. floodplains and riparian corridors
       e. wetlands
   (4) agricultural lands
   (5) impact on surrounding land uses
   (6) pipeline mapping, and public disclosure of such
   (7) 24-hours emergency contact information of at least 2 individuals with 24/7 decision-making authority
   (8) proof of utility agreements
   (9) traffic plan/assessment
   (10) cost to GID road district residents
   (11) setback requirements
   (12) time frame requirements for
       a. process
       b. inactive well, before reclamation is required

In conclusion,
Thank you for the opportunity to express my concerns.

Q14 Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events
and hearings?

Name
Sherri Valentine

Email Address
sher@skybeam.com
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?  
Yes, if so what is the name of the Organization?: Platte River Power Authority, Fort Collins, Colorado

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1 - Intent and Purpose?  
In general, Platte River Power Authority ("Platte River") recommends that Larimer County include protections intended to minimize the impacts of oil and gas development on sensitive and critical facilities within the County. These would include additional protections for critical infrastructure and facilities that provide essential public services to Larimer County residents, such as power plants and electrical utility infrastructure. At Section 17.3(2), the proposed Oil and Gas Regulations ("Regulations") note the intent is to minimize impacts on agricultural operations. This wording is too narrow. It should include minimizing impacts on critical facilities and infrastructure and residential areas and incorporate the new mandate of the Colorado Oil and Gas Conservation Commission ("COGCC") to protect and minimize adverse impacts to public health, safety and welfare, the environment, and wildlife resources. Further, Platte River believes the tone of the current Regulations is more advisory than regulatory. In many instances, the draft Regulations establish a requirement, but include language that the requirement may be avoided if compliance is "economically infeasible or impracticable." In other instances, the Regulations state "we encourage the Operator" to do something. We urge Larimer County to adopt requirements that provide clarity, both for oil and gas operators and the community, as to the exact standards required under the proposed Regulations. If applications for oil and gas facilities are processed through special review, open-ended language exposes the special review process to further attack.

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2 - Required Process and Permits?  
Respondent skipped this question

Q4 Please share your opinion on 17.3 - Standards Required for all Oil and Gas Facilities.

General

Air Quality

Leak Detection and Repair

Spills and Releases

Chemical Handling

Water Bodies

Flammable Material

Flow Lines, Transfer Lines and Gathering Lines

Financial Assurance

Generally Like (Needs Clarification or Improvement)

Generally Like (Needs Clarification or Improvement)

Generally Like (Needs Clarification or Improvement)

Generally Like (Needs Clarification or Improvement)

Generally Like (Needs Clarification or Improvement)

Generally Like (Needs Clarification or Improvement)

Generally Like (Needs Clarification or Improvement)

Generally Like (Needs Clarification or Improvement)
Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3. - Standards Required for all Oil and Gas Facilities?

Section 17.3(B) deals with air quality. Subsection 4 provides that all emissions shall be routed to and controlled by a flare or combustor operated with at least 98% destruction removal efficiency. Instead of referencing “all emissions” to be controlled, there should be a specific reference to “hydrocarbons.” Subsection 7 requires site operations to be modified on air quality action days posted by the Colorado Department of Public Health and Environment. Once these notices are posted they are effective until 4 p.m. the following day. Given the short timeframe to respond to a notice, operators potentially should be required to subscribe to air quality alerts via email. Additionally, the Regulations should define a process or require proper documentation to verify that operators responded to the air quality alerts. The Regulations should also clarify if the requirement to respond to air quality alerts applies countywide or only in the portion of the County located in the Denver Metro/North Front Range ozone nonattainment area.

Section 17.3(D) deals with spills and releases. Platte River believes that any application for an oil and gas facility should include a written plan for spill prevention, control, and countermeasures that would comply with local, state, and federal regulatory requirements.

Regulation 17.3(J)(2) requires that drilling and completion chemicals be removed within 60 days. Platte River encourages Larimer County to require these chemicals be removed within 30 days of drilling completion.

At Section 17.3(L)(1), we propose the language be changed to include the following: “The applicant shall provide documentation to the County, as required by the COGCC, demonstrating how the COGCC water quality protection standards are being complied with, including both surface and groundwater protections.”

Section 17.3(S)(3) requires that operators provide the coordinates of all flow lines, gathering lines, and transfer lines, but does not specify when the operator must supply these coordinates. At Section 17.3(N)(1)(d), it states an operator must only supply these coordinates with the notice of completion of well abandonment for any decommissioned wells. We believe these coordinates should be provided within 30 days of completion of any flow lines, transfer lines, or gathering lines. Moreover, given the extreme hazards associated with flow lines, we encourage Larimer County to proactively regulate flow lines and advocate against waiting to see what standards the COGCC will adopt.

Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4. - Guidelines for Oil and Gas Facilities? (Respondent skipped this question)

Q7 Do you have detailed suggestions to add, remove or modify anything in Section 17.5. - Application Requirements?

Platte River further encourages Larimer County to adopt a requirement that operators negotiate and obtain surface use agreements for any proposed facilities, and that all applications for oil and gas facilities must include a surface use agreement. At a minimum, Larimer County should mandate that operators obtain a surface use agreement if they intend to locate oil and gas operations near sensitive or critical facilities, including but not limited to power generation or energy utility infrastructure. Given the nature of energy delivery and the threat to public health and safety if it were disrupted, we believe requiring a surface use agreement for lands owned by or used for energy generation and delivery is essential to protect community welfare.

Q8 Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals? (Respondent skipped this question)

Q9 Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections? (Respondent skipped this question)

Q10 Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation? (Respondent skipped this question)

Q11 Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification? (Respondent skipped this question)

Q12 Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions? (Respondent skipped this question)

Q13 Do you have any other suggestions for topics to add?

Platte River recommends that Larimer County adopt specific setback requirements and advocates against waiting to see what standards the COGCC adopts. At a minimum, we believe the 1,000-foot setback requirement for schools should be adopted for all occupied structures. The COGCC Director's Objective Criteria for the rule-making process subjects any proposed oil and gas well locations within 2,000 feet of an occupied structure to additional analysis. Platte River urges Larimer County to adopt a setback requirement in line with the 2,000 feet used in the Director's Objective Criteria. Additionally, Platte River recommends a setback requirement of 2,500 feet from sensitive and critical facilities, including electric generation facilities and substations.
Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?

<table>
<thead>
<tr>
<th>Name</th>
<th>Caroline Schmiedt, Deputy General Counsel</th>
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<tbody>
<tr>
<td>Email Address</td>
<td><a href="mailto:schmiedtc@prpa.org">schmiedtc@prpa.org</a></td>
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Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?  
No

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1. - Intent and Purpose?  
Respondent skipped this question

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2. - Required Process and Permits?  
Respondent skipped this question

Q4 Please share your opinion on 17.3. - Standards Required for all Oil and Gas Facilities.

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Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3. - Standards Required for all Oil and Gas Facilities?  
Respondent skipped this question

Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4. - Guidelines for Oil and Gas Facilities?  
Respondent skipped this question

Q7 Do you have detailed suggestions to add, remove or modify anything in Section 17.5. - Application Requirements?  
Respondent skipped this question

Q8 Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals?  
Respondent skipped this question

Q9 Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections?  
Respondent skipped this question

Q10 Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation?  
Respondent skipped this question

Q11 Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?  
Respondent skipped this question

Q12 Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions?  
Respondent skipped this question
Q13 Do you have any other suggestions for topics to add?

I am concerned with air quality and water conservation in Larimer County and Colorado, therefore I strongly support fair and equitable regulation of the oil and gas industry.

Q14 Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?

<table>
<thead>
<tr>
<th>Name</th>
<th>Kevin Woodward</th>
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<tbody>
<tr>
<td>Email Address</td>
<td><a href="mailto:kwoodward@yahoo.com">kwoodward@yahoo.com</a></td>
</tr>
</tbody>
</table>
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?

Yes,
If so what is the name of the Organization?: Larimer Alliance for Health, Safety & the Environment

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1 - Intent and Purpose?

We strongly recommend the limitation of all uses of phrases that allow loopholes with regard to protection of public health, safety, and the environment. SB19-181 eliminated “economic feasibility” considerations from the state’s oil and gas regulatory decisions, the COGCC Mission Change White Paper dated Nov. 1, 2019 affirmed this decision, and we encourage Larimer County to take a similar approach and eliminate loophole language such as “to the maximum extent practicable” and “where feasible.”

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2 - Required Process and Permits?

We find that the minimalist “Special Review and Minor Special Review requirements, as well as the “Supplemental Review” criteria referenced in 17.2.B neglect to include public notice or process regarding new oil and gas proposals and are void of an array of materials required by a number of other Colorado county governments that would allow the County to fully review and vet an oil and gas site proposal.

We recommend, at minimum:
-- The development of a separate land use process and special use review process that is specific to new and existing oil and gas development and infrastructure.
-- The development of a public process for each new oil and gas facility that includes a 60 days-notice of the permit application to all residents, landowners, and parents of school children attending a school within 1 mile of a proposed oil and gas site, public disclosure of all required documents submitted to the County by the Operator, and an independent environmental, financial, and risk analysis to be prepared and presented to the County, and public hearings before the County Planning Commission and Larimer County Commissioners.
-- A detailed process for the submission of required materials by the operator to the county. We finally that a detailed list of required application materials, (as described in Section 17.5) be moved to Section 17.2.C. Furthermore, this section should clearly define the required planning documentation. This documentation should further ensure that the operator has a sense of the County’s standards regarding protections of public health, safety, the environment and wildlife resources.

Q4 Please share your opinion on 17.3 - Standards Required for all Oil and Gas Facilities.

Respondent skipped this question
Do you have detailed suggestions to add, remove or modify anything in Section 17.3. - Standards Required for all Oil and Gas Facilities?

We strongly recommend that the opening paragraph 17.3.A.2 include a required 2,000 foot setback from all residential or high occupancy buildings, outdoor parks, water bodies or other environmentally sensitive areas.

Southern Larimer County falls within Colorado’s 8-hour ozone non-attainment area for Air Quality. Oil and gas development is one of the top contributors to greenhouse gas emissions. We believe that Larimer County residents deserve innovative local regulatory measures that require compliance without "feasibility and practicability" loopholes. The County should be clear about what it requires to protect the health and safety of its citizens and the environment.

We believe that the county should require certification of compliance with COGCC, CDHPE, AQCC and EPA air quality emission standards, as well as compliance with all OSHA work practice requirements regarding benzene exposure.

We recommend that the county conduct onsite baseline air quality monitoring ahead of all oil and gas permitting considerations, and should require annual Leak Detection and Repair inspections. The results of these inspections and annual onsite air quality monitoring should be reported to the County.

Operators should be required to incorporate best management practices with regard to maintenance activities, "tankless" production techniques, the use of telemetric control and monitoring systems, and control of hydrocarbon and VOC emissions.

Given that leaks and spills at oil and gas sites pose a threat to public health, safety and the environment, the County should exercise its right to require that any oil and gas well with an identified leak shall be shut down and not allowed to operate until the operator has provided evidence that the leak has been repaired if an immediate timeline for repair is not identified by the operator. We recommend specific requirements and timelines for reporting leaks and spills, and believe the county should make information regarding leaks and spills be available to the public.

Detailed noise mitigation is an imperative component in the development of oil and gas regulations that are truly intended to protect public health, safety, welfare, the environment, and wildlife resources. We recommend that baseline daytime and nighttime noise levels be measured in Residential, Agricultural or Rural and Commercially zoned areas and that no equipment operated in a manner so as to create noise which causes noise levels to exceed ambient noise by 3-10 decibels, depending on time of day and location.

We further recommend that the County create a complaint hotline for the purposes of health and nuisance complaints, including noise, odors, or other non-compliance concerns. Exposure to odors from oil and gas development can often be an initial sign of chemical exposure with acute impacts to public health. We find that the County regulations regarding odor, allow for potential unmitigated exposure and risk public health. We recommend that the County create a public comment portal that will also link with the COGCC.

Water bodies are extremely susceptible to impacts from oil and gas operations. Impacts to a variety of water bodies pose serious risk to public health, safety, welfare, and the environment. We recommend in Section 17.3.L a requirement that operators provide a water quality plan to that includes details such as the operator’s plans for water quality testing, prevention of illicit or inadvertent discharges, stormwater discharge management, containment of pollutants, and spill notification and response as well as plans concerning downhole construction details and installation practices, including casing and cementing design to protect surface water and aquifers from contamination.

In addition to complying with the COGCC’s plugging and abandonment requirements (section 17.3.N), we request the inclusion of soil and water assessments and air quality monitoring within 90 days of completion and at least once a year afterwards, and a permanent physical marking at the site of each abandoned well.

Flowlines, transfer lines, and gathering lines represent a significant amount of infrastructure mixed in communities and environmental resources. We strongly recommend setbacks and reverse setbacks commensurate with blowout and blast radiuses for new and existing pipelines using the existing scientific formula established by industry, a current and comprehensive mapping system, regular inspections and pressure tests. We also recommend that all pipelines be buried under at least four feet of cover soil and require the use of tracer wire to enable onsite detection.

Do you have detailed suggestions to add, remove or modify anything in Section 17.4. - Guidelines for Oil and Gas Facilities?

Protection of public health, safety, welfare and the environment, as required by SB19-181, means that local governments should be clear about their standard of operating and performance regarding oil and gas development. We strongly recommend that the language in Section 17.4 and elsewhere be direct and explicit, avoiding ambiguity or subjectivity. Therefore we ask that the County “require” (not “encourage”) tankless production techniques as applicable, use zero emission dehydrators, use pressure suitable separator and vapor recovery units, use no-bleed continuous and intermittent pneumatic devices; the use of electric rigs and Tier 4 engines; use automated tank gauging, and prohibit flaring except during emergencies or upset conditions.

We also recommend that Section 17.4A.2 be moved to Section 17.3.G and language to “encourage” compliance be strengthened.

Do you have detailed suggestions to add, remove or modify anything in Section 17.5. - Application Requirements?

Please see the detailed recommendations provided to County Staff from the League of Oil Impacted Coloradans (LOGIC) and the Larimer Alliance.

Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals?

Please see the detailed recommendations provided to County Staff from the League of Oil Impacted Coloradans (LOGIC) and the Larimer Alliance.

Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections?

Please see the detailed recommendations provided to County Staff from the League of Oil Impacted Coloradans (LOGIC) and the Larimer Alliance.
Q10 Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation?
Please see the detailed recommendations provided to County Staff from the League of Oil Impacted Coloradans (LOGIC) and the Larimer Alliance.

Q11 Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?
Please see the detailed recommendations provided to County Staff from the League of Oil Impacted Coloradans (LOGIC) and the Larimer Alliance.

Q12 Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions?
Please see the detailed recommendations provided to County Staff from the League of Oil Impacted Coloradans (LOGIC) and the Larimer Alliance.

Q13 Do you have any other suggestions for topics to add?
Please see the detailed recommendations provided to County Staff from the League of Oil Impacted Coloradans (LOGIC) and the Larimer Alliance.

Q14 Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?

Name: Tom Rhodes
Email Address: tomrhodes2010@gmail.com
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire?  
   No

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1 - Intent and Purpose?  
   Respondent skipped this question

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2 - Required Process and Permits?  
   Respondent skipped this question

Q4 Please share your opinion on 17.3 - Standards Required for all Oil and Gas Facilities.

General
Air Quality
Leak Detection and Repair
Spills and Releases
Well Liquids Unloading
Noise
Odors
Dust
Access
Chemical Handling
Recycle, Reuse and Disposal of Fluids
Water Bodies
Visual
Well Plugging and Abandonment
Flammable Material
Removal of Equipment
Maintenance of machinery
Flow Lines, Transfer Lines and Gathering Lines
Temporary Water lines
Financial Assurance

Dislike
Dislike
Dislike
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Dislike
No Comment
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Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3 - Standards Required for all Oil and Gas Facilities?  
   Respondent skipped this question

Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4 - Guidelines for Oil and Gas Facilities?  
   Respondent skipped this question

Q7 Do you have detailed suggestions to add, remove or modify anything in Section 17.5 - Application Requirements?  
   Respondent skipped this question

Q8 Do you have detailed suggestions to add, remove or modify anything in Section 17.6 - Appeals?  
   Respondent skipped this question

Q9 Do you have detailed suggestions to add, remove or modify anything in Section 17.7 - Enforcement and Inspections?  
   Respondent skipped this question
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<td><strong>Q10</strong> Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation?</td>
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<td><strong>Q11</strong> Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?</td>
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<td><strong>Q12</strong> Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions?</td>
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<td><strong>Q13</strong> Do you have any other suggestions for topics to add?</td>
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<tr>
<td>The minimum setback needs to be 2500ft and greater for vulnerable populations. Also, the cities whose roads are being used by the rigs in the county need to receive a percentage of a tax to maintain those roads.</td>
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<tr>
<td><strong>Q14</strong> Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?</td>
<td>Respondent skipped this question</td>
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</table>
Q1 Are you associated with a group or organization that will be providing comments to this questionnaire? No

Q2 Do you have detailed suggestions to add, remove or modify anything in Section 17.1. - Intent and Purpose?
I wish to see the County addressing and regulating all stages, including exploration and seismic testing.

Q3 Do you have detailed suggestions to add, remove or modify anything in Section 17.2. - Required Process and Permits?
Are public meetings and notification part of the process? I think the public and businesses within minimum 2,000 feet should be made aware and able to attend informational and decision making meetings.

Q4 Please share your opinion on 17.3. - Standards Required for all Oil and Gas Facilities.

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<th>Opinions</th>
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Q5 Do you have detailed suggestions to add, remove or modify anything in Section 17.3. - Standards Required for all Oil and Gas Facilities?

Protecting our air and water need to be top priority, over profits for O&G. This means requiring the items that say "economically infeasible or impractical." Many other local governments have done it. Please follow their example. Also, close the 90 day loophole for emissions. Our air quality is poor. We must make serious efforts to turn it around and not add to it. The regulations appear to be flexible for the operators benefit. Leak detection should be done by a 3rd party, not the operator self reporting. Under odors, I'm shocked suggestion of keeping windows closed 24/7 or relocating is considered okay. Who's paying for me to temporarily relocate if the odors are bad enough? Is that fee going to be written into the regulations? Please require mapping of flow lines, etc. Please include setbacks from homes, parks, schools and water sources and setbacks from existing oil wells for new development.

Q6 Do you have detailed suggestions to add, remove or modify anything in Section 17.4. - Guidelines for Oil and Gas Facilities?

Please require these items, not just encourage. These are things that will protect our air and environment.
<p>| Q7 | Do you have detailed suggestions to add, remove or modify anything in Section 17.5. - Application Requirements? | Respondent skipped this question |
| Q8 | Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals? | Respondent skipped this question |
| Q9 | Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections? | I like letter B but would like to see some specifics. The County should hire an inspector for this job |
| Q10 | Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation? | Please make sure the total cost for the life of the well is covered in bonding. Also, is the transportation fee set should adequately cover costs to repair damage to roads from all truck traffic |
| Q11 | Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification? | Respondent skipped this question |
| Q12 | Do you have detailed suggestions to add, remove or modify anything in Section 17.10. - Definitions? | Respondent skipped this question |
| Q13 | Do you have any other suggestions for topics to add? | Respondent skipped this question |
| Q14 | Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings? | Respondent skipped this question |</p>
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<td>Yes, If so what is the name of the Organization?: King Operating Corp. and Wellington Operating Co.</td>
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<table>
<thead>
<tr>
<th>Q8</th>
<th>Do you have detailed suggestions to add, remove or modify anything in Section 17.6. - Appeals?</th>
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<tr>
<th>Q9</th>
<th>Do you have detailed suggestions to add, remove or modify anything in Section 17.7. - Enforcement and Inspections?</th>
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<th>Do you have detailed suggestions to add, remove or modify anything in Section 17.8. - Fees and Security for Reclamation?</th>
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<th>Q11</th>
<th>Do you have detailed suggestions to add, remove or modify anything in Section 17.9. - Termination of Use or Modification?</th>
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<table>
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<tr>
<th>Q13</th>
<th>Do you have any other suggestions for topics to add?</th>
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<tbody>
<tr>
<td></td>
<td>King Operating Corporation and Wellington Operating Company are submitting a joint comment letter by email to Matt Lafferty.</td>
</tr>
</tbody>
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**Larimer County Oil and Gas Proposed Regulations**
Q14 Please provide us with your contact information (optional) if you would like us to keep you informed about upcoming drafts, events and hearings?

<table>
<thead>
<tr>
<th>Name</th>
<th>Tom Shaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email Address</td>
<td><a href="mailto:thshaw@msn.com">thshaw@msn.com</a></td>
</tr>
</tbody>
</table>
September Survey Monkey Questionnaire Results
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Answered: 35   Skipped: 2

<table>
<thead>
<tr>
<th>ANSWER CHOICES</th>
<th>RESPONSES</th>
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<tbody>
<tr>
<td>Strongly agree</td>
<td>5.71%</td>
</tr>
<tr>
<td>Agree</td>
<td>14.29%</td>
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<tr>
<td>Neither agree nor disagree</td>
<td>14.29%</td>
</tr>
<tr>
<td>Disagree</td>
<td>25.71%</td>
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<tr>
<td>Strongly disagree</td>
<td>25.71%</td>
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<td>TOTAL</td>
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Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Answered: 36  Skipped: 1

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<thead>
<tr>
<th>ANSWER CHOICES</th>
<th>RESPONSES</th>
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<tbody>
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<td>Strongly agree</td>
<td>2.78%</td>
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<tr>
<td>Agree</td>
<td>5.56%</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>11.11%</td>
</tr>
<tr>
<td>Disagree</td>
<td>11.11%</td>
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<tr>
<td>Strongly disagree</td>
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<td>Other (please specify)</td>
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Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Answered: 36  Skipped: 1

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<thead>
<tr>
<th>ANSWER CHOICES</th>
<th>RESPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>2.78%</td>
</tr>
<tr>
<td>Agree</td>
<td>5.56%</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>13.89%</td>
</tr>
<tr>
<td>Disagree</td>
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<tr>
<td>Strongly disagree</td>
<td>50.00%</td>
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Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Answered: 35  Skipped: 2

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<tr>
<th>ANSWER CHOICES</th>
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<tr>
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Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Answered: 35  Skipped: 2

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<thead>
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<th>ANSWER CHOICES</th>
<th>RESPONSES</th>
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<tr>
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<tr>
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<td>Neither agree nor disagree</td>
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<tr>
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<td>Other (please specify)</td>
<td>42.86%</td>
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Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

Answered: 36  Skipped: 1

**ANSWER CHOICES**  **RESPONSES**

<table>
<thead>
<tr>
<th>Choice</th>
<th>Percentage</th>
<th>Count</th>
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<tr>
<td>a - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)</td>
<td>52.78%</td>
<td>19</td>
</tr>
<tr>
<td>b - Require a plan for leak detection, reporting and repair</td>
<td>63.89%</td>
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<tr>
<td>c - Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors</td>
<td>36.11%</td>
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<tr>
<td>d - Encourage the application of tankless production techniques</td>
<td>33.33%</td>
<td>12</td>
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<tr>
<td>e - Require alternative disposal of VOC's to eliminate flaring</td>
<td>47.22%</td>
<td>17</td>
</tr>
<tr>
<td>f - Encourage on-site use of captured natural gas</td>
<td>58.33%</td>
<td>21</td>
</tr>
<tr>
<td>g - Support pipeline for transportation of resources to limit truck traffic to and from site</td>
<td>50.00%</td>
<td>18</td>
</tr>
<tr>
<td>h - Require water delivery to the site to discourage water hauling</td>
<td>47.22%</td>
<td>17</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>58.33%</td>
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Total Respondents: 36
Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Answered: 36  Skipped: 1

<table>
<thead>
<tr>
<th>ANSWER CHOICES</th>
<th>RESPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>5.56%</td>
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<tr>
<td>Agree</td>
<td>22.22%</td>
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<tr>
<td>Neither agree nor disagree</td>
<td>2.78%</td>
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<tr>
<td>Disagree</td>
<td>16.67%</td>
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<tr>
<td>Strongly disagree</td>
<td>38.89%</td>
</tr>
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</table>

TOTAL 36

Oil and Gas Questions for September 2019
Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Answered: 36  Skipped: 1

<table>
<thead>
<tr>
<th>ANSWER CHOICES</th>
<th>RESPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>2.78%</td>
</tr>
<tr>
<td>Agree</td>
<td>16.67%</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>36.11%</td>
</tr>
<tr>
<td>Disagree</td>
<td>11.11%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>19.44%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>36</td>
</tr>
</tbody>
</table>
Q9 Do you have any other suggestions related to possible oil and gas regulations?

Answered: 24   Skipped: 13
<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Response</th>
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<tr>
<td>#1</td>
<td>Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)</td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)</td>
<td>Neither agree nor disagree</td>
</tr>
<tr>
<td></td>
<td>Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)</td>
<td>Neither agree nor disagree</td>
</tr>
<tr>
<td></td>
<td>Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)</td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)</td>
<td>Disagree</td>
</tr>
</tbody>
</table>
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
- Require a plan for leak detection, reporting and repair
- Require alternative disposal of VOC’s to eliminate flaring
- Encourage on-site use of captured natural gas
- Support pipeline for transportation of resources to limit truck traffic to and from site
- Require water delivery to the site to discourage water hauling

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Disagree

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Disagree

Q9 Do you have any other suggestions related to possible oil and gas regulations?

My concerns after attending the open house were:
1) Application requirements were plans with no meaningful commitment to responsibility. Plans will be boiler plate.
2) Third party monitoring subject to non-reporting and influence by oil and gas companies.
3) Limited county staffing for oversight.

Finally, while county staff were accessible and friendly at open house and at task force meetings they frequently respond to questions in a condescending manner. Effective facilitators should not interact in a perfunctory way with the public.
#2

**Q1** Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

*Agree,*

Other (please specify):

Climate change should be included explicitly in "environment." The IPCC has said we need to reduce TOTAL greenhouse gas emissions by 50% by 2030, which is a conservative projection. Public policy - including Larimer County policy - needs to start taking climate change into account immediately.

**Q2** Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

*Neither agree nor disagree*

**Q3** What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

*Strongly disagree,*

Other (please specify):

Setbacks from places people occupy and other sensitive areas should be at least 2,500 feet, for all the reasons called for in the statewide ballot initiative in 2018.

**Q4** Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

*Neither agree nor disagree*

**Q5** What is your opinion of the possible application requirements? (See Poster 5 for more information)

*Neither agree nor disagree*
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

   a - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator),
   b - Require a plan for leak detection, reporting and repair,
   c - Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors,
   d - Encourage the application of tankless production techniques,
   e - Require alternative disposal of VOC's to eliminate flaring,
   f - Encourage on-site use of captured natural gas,
   g - Support pipeline for transportation of resources to limit truck traffic to and from site,
   h - Require water delivery to the site to discourage water hauling

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

   Strongly disagree,
   Other (please specify):
   I don't support the use of water - much of which permanently is removed from the water cycle - to extract oil and gas. Period.

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

   Neither agree nor disagree

Q9 Do you have any other suggestions related to possible oil and gas regulations?

   Our society - and Larimer County in particular - needs to move AWAY from oil and natural gas and TOWARD renewable energy as soon as possible, or else we will experience a climate catastrophe in which people and many of the other creatures currently living on earth will likely go extinct. The County's oil and gas policy should reflect this fact.
#3

**Q1** Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Neither agree nor disagree,

While I welcome regulation, so many times with oil and gas 'regulation' seems to equal 'rubber stamp'. I'm in favor of a minimum of 1/2 mile setbacks, as that's the safety zone when there's an incident. I think current Colorado frack wells are far too close to people's homes, schools, and travel corridors.

Other (please specify):

While I welcome regulation, so many times with oil and gas 'regulation' seems to equal 'rubber stamp'. I'm in favor of a minimum of 1/2 mile setbacks, as that's the safety zone when there's an incident. I think current Colorado frack wells are far too close to people's homes, schools, and travel corridors.

**Q2** Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):

I'm skeptical of the county government's ability/willingness to stand up to oil and gas money. I agree with a moratorium on any new oil and gas in alignment with the Colorado Standards.

**Q3** What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Strongly disagree,

Other (please specify):

While the threshold seems reasonable, I'm afraid of loopholes, I definitely think that a 2640 ft (1/2 mile) setback is necessary for any frack operations. What's happening at Bella Romero school in Greeley, must never happen in Larimer County. I don't want any wells in Larimer County.
**Q4** Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Neither agree nor disagree
Other (please specify):
I don't agree with any wells in Larimer County. I remember a Labrador Retriever friend I had once who was not allowed in the living room. As soon as he got his nose in the room it wasn't long before he was on someone's lap.

**Q5** What is your opinion of the possible application requirements? (See Poster 5 for more information)

Other (please specify):
Look at the list you have. Do we really want to be even discussing this? No wells in Larimer County. The air is bad enough already.

**Q6** Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

Other (please specify):
I don't want wells, I want Larimer County to tell me what they're going to do about the Climate Emergency.

**Q7** Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Strongly agree,
Other (please specify):
If Strongly Agree means that I want to protect the water. I don't want water being used to frack for natural gas, and I don't want frack water to get into our good water system or to threaten wildlife.

**Q8** Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Neither agree nor disagree
Other (please specify):
I prefer to use county roads to bicycle and drive. Already industry is a threat to my enjoyment in this way. Traffic is already a major problem in Larimer County.

**Q9** Do you have any other suggestions related to possible oil and gas regulations?

Please continue to plan on how you're going to hold off the Oil and Gas industry. No slant drilling, 2640 foot setbacks, solid plan to help other pedestrian/bicyclists/motorists/landowners cope with O&G Transportation impacts, and take into consideration the existing Climate Emergency in the World/US/Colorado. Please adhere to the moratorium on any new development in line with Colorado.
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Neither agree nor disagree, Standards have not been specified, as far as I know, and therefore I cannot say I agree or disagree. I agree that human, ecosystem, and planetary health should be prioritized, including water, air, land, etc. We know there are already too many greenhouse gases in the atmosphere and we need to stop adding to them as much and as soon as we possibly are able. We know that the safe evacuation distance from a hydraulic fracturing well is 2640’ (or 1/2 mile) and therefore this should be the minimum setback for all wells.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify): I don't know what regulations are going to be set; I agree that the Oil and Gas industry should be regulated, with the understanding that this is not just a "Not In My Back Yard" issue. The health of the whole front range is affected by Weld County--and all--fracking, including air quality, and the whole planet is affected by what each county does.

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Strongly disagree, Since the minimum evacuation distance is 2640’ in the event of an explosion at a well, I suggest that this should be the minimum standard for all setbacks.
**Q4** Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

**Disagree,**

Other (please specify): If the application does not meet the requirements, the application should be denied for non-compliance; no appeals necessary.

---

**Q5** What is your opinion of the possible application requirements? (See Poster 5 for more information)

Other (please specify):

All of this land is Indigenous land, stolen by colonizers and some of which is protected under sovereign nation to sovereign nation Treaty. All questions of mineral or surface use should be administered by Tribal Government. Also, there is no mention of Climate Breakdown, which should be the first concern of any project!

---

**Q6** Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

Other (please specify):

Monitoring air quality requires an independent monitor, not one paid by the industry it is monitoring, and it should be constant. None of this is safe, if one takes the climate crisis seriously. This is a waste of water, also.

---

**Q7** Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

**Strongly disagree,**

Other (please specify):

We cannot afford to contaminate any of our water, which can never be "mitigated" back to its original state. We cannot afford to waste any water, and keeping it separate from streams, creeks, etc. is not possible. The Earth is a system, ecosystems work together, and no new fossil fuels can be safely generated.

---

**Q8** Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

**Neither agree nor disagree,**

Other (please specify):

Of course I am in favor of sufficient and effective regulations for health, safety, and infrastructure protection. But I feel that any special construction of access roads and infrastructure to support the development of oil and gas in Larimer County (and anywhere in the world, for that matter) is only exacerbating the problem of climate breakdown, and keeping us distracted from actually solving our energy use and how it affects the Earth.
Q9 Do you have any other suggestions related to possible oil and gas regulations?

At this point in the history of our planet, the minimal and best practice is to place a moratorium on any future fossil fuel development. We must learn to be more energy efficient and conservative with the resources we have and take under serious consideration how our present actions will affect our children's lives and beyond. Thank You!
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)  

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)  

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)  

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)  

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)  

Other (please specify): More requirements are needed, there is no mention of VOC monitoring, and mitigation. Also should require plans for people whom develop cancer, asthma and other illnesses by people are working/living/existing 5 mile radius of any drilling/fracking site.
**Q6** Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- a - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator),
- b - Require a plan for leak detection, reporting and repair,
- c - Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors,
- e - Require alternative disposal of VOC’s to eliminate flaring,
- g - Support pipeline for transportation of resources to limit truck traffic to and from site,

Other (please specify):

Require MONTHLY air quality monitoring. Oil and gas are entirely responsible for the lack of ozone in Colorado, and they are entirely responsible for the decrease of air quality.

---

**Q7** Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

- Strongly disagree

Other (please specify):

Not enough!!!!

---

**Q8** Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

- Strongly disagree

Other (please specify):

If oil and gas are going to use resources paid for by the taxpayers, they need to be responsible for upkeep on those county, state, and city roads as well. We all know they don’t live here and don’t pay taxes here, they either to be charged heavy fees for public roads or be charged maintenance or taxed high fees. The tax payer needs to stop footing the bills for these companies to bankrupt local resources for their gain!!!
Q9 Do you have any other suggestions related to possible oil and gas regulations?

Can we get some people who aren’t paid for by oil and gas on this task force? Clearly none of you give a fuck about Colorado or Larimer county or the people wildlife in it. You are all in it to put money in your pockets! We see you!
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Agree,
Other (please specify):
Safeguarding air and water quality are particularly important to protecting Larimer County residents' health, safety and welfare. Maintaining and improving air and water quality protects our farm and ranch land and our forests. Set backs and nuisance issue priorities are particularly important to nearby neighborhoods, schools etc.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Agree
Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Neither agree nor disagree,
Other (please specify):
The 1000 foot setbacks form homes, schools, sports fields, playgrounds, etc. should be from the property line, not the building. I like the 1000 ft. setback from drinking water sources or facilities (includes wells, reservoirs, lakes and ponds). I would add irrigation ditches because the deleterious effect on farms from possible contamination of ditch water. I like the 1000 ft. setback from floodways, and geological hazard areas. Please increase setbacks to designated outdoor activity (trails), wetlands of sensitive wildlife habitat - this is an especially important setback. 1000 ft. setback from an adjoining municipal boundary is fair to the municipality to decrease likelihood of land use disagreements between the involved governments and their residents. I like and agree with the stated threshold criteria. Regarding the application process - how will the County assure that operators who don’t wish to comply with all requirements just chose to go the route of a hearing before the Commissioners instead of complying? Residents may have to go through the approval process with each application that does not comply rather than relying on the developed regulations.

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Neither agree nor disagree,
Other (please specify):
What assurance do County residents have that operators won’t just chose to go the route of a hearing before the Commissioners rather than comply with the developed regulations?

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Strongly agree
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

a - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)

b - Require a plan for leak detection, reporting and repair

c - Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors

d - Encourage the application of tankless production techniques

e - Require alternative disposal of VOC’s to eliminate flaring

f - Encourage on-site use of captured natural gas

g - Support pipeline for transportation of resources to limit truck traffic to and from site

h - Require water delivery to the site to discourage water hauling

Other (please specify):
Add use of Tier 4 Diesel engines, use of NeoFlo 4633 - less odor and less emissions. Increase frequency of 3rd party air quality to quarterly. Require frequent air emissions monitoring by operator. Require green completions. Consider continuous emissions monitoring.
Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Agree,
Other (please specify):
All means possible should be used to protect water quality for residents, wildlife, farmers and ranchers. Ground water must be protected in addition to surface water features - need frequent leak detection, repair and remediation. Operator must be required to submit spill prevention and clean up plan as part of application. Please include the list of CU's AirWaterGas water quality team regarding chemicals used in fracturing fluid that most likely will contaminate ground water if released and ban the use of these chemicals. Storm water inspections be conducted weekly and immediately after a storm event. Repairs required of operator.

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Agree,
Other (please specify):
Add access road speed limits to reduce dust. Daytime only travel. Timing of truck travel (deliveries and pumpers) on access roads. Traffic signs. Pad and access road must accommodate multiple emergency vehicles.

Q9 Do you have any other suggestions related to possible oil and gas regulations?

Thanks to County staff and task force for all their efforts.
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Neither agree nor disagree, The issue is that the task force is not aligned with the public. The task force works on behalf of the public and the public's priorities should be the task force's priorities. Air quality is #1.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Strongly disagree

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Strongly disagree, Setbacks should based on the science that is now clear in terms of public health. The set backs needs to be much greater to keep Larimer county residents safe.

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Strongly disagree

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Disagree
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
- Require a plan for leak detection, reporting and repair
- Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors
- Encourage the application of tankless production techniques
- Require alternative disposal of VOC’s to eliminate flaring
- Encourage on-site use of captured natural gas
- Support pipeline for transportation of resources to limit truck traffic to and from site
- Require water delivery to the site to discourage water hauling

Other (please specify):
There should be specific air quality impact/emissions limits. These existing items do not go far enough and have too light of language. For example a "FEASIBILITY analysis" can always be architectured in a way that makes it "not feasible". "ENCOURAGE on-site use of captured natural gas" means it likely won't be done.

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

- Strongly disagree

Other (please specify):
Again, this doesn't go far enough based on what Larimer county residents are asking for.
Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

**Strongly disagree**

Other (please specify):

This doesn't go far enough. They should be taxed heavily based on actual impacts to roads and residents from a noise, dust and otherwise standpoint. The roads were not designed for this use. Residents are asking for the task force to do more in all areas, including this one.

---

Q9 Do you have any other suggestions related to possible oil and gas regulations?

On poster #2 "What we have heard so far" it is evident that the public has provided the task force and county that the priorities they should be operating off of. There is absolutely no reason that the task force's priorities should differ from the public's priorities. We are clearly asking for action based on the notions of and direct capabilities that SB-181 has established...those notions being putting human health, public safety, and environment first. Please act on behalf of Larimer County residents who are clearly asking for change, and on the behalf of operators.
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Strongly disagree

Other (please specify):
The task force should be suspended until the COGCC has issued their final report and regulations. At that time, the citizens of Larimer County must be allowed to present objection or support of each task force candidate before the Commissioners determine who will staff the task force. No O & G permit applications should be considered until the Larimer Task Force has finalized its regulations. All current O & G activity should be stopped until Task Force finalization.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Strongly disagree

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Strongly disagree

Other (please specify):
Most Fire Districts recommend and use a minimum 2,500 foot evacuation zone when there is an industrial explosion, fire, toxic leak. This should be the minimum setback of any fracking site from housing, office buildings, schools, playgrounds, athletic fields, stadiums, stores, malls, waterways, lakes, or any other areas with concentrations of humans. There should never be allowed "conditional" permitting lessening the setback distance.

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Strongly disagree
Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Other (please specify):
The application must include language protecting the taxpayers from traumatic events, illness from VOC’s, and the cost to plug abandoned holes. It would require a form of bonding, fully paid by the operator to the State of Colorado, which probably should be somewhere close to ten million dollars per bore hole.

Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

Other (please specify):
Leak detection should be a constant, independent third party operated function. It must be paid for by the O & G operator. 24 hours allowed to stop any leak, $50,000 per day fine, including day leak discovered.

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Strongly disagree,
Other (please specify):
All independent third party testing. Fully paid by Operator. Weekly testing within two miles of site. Weekly monitoring of any potential potable water within two miles.

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Strongly disagree,
Other (please specify):
If the site road empties onto a paved road, 1,000 feet, minimum, of the site road must be paved ending at the paved road, to eliminate "tracking" of dirt and mud onto the paved road.

Q9 Do you have any other suggestions related to possible oil and gas regulations?

No permits approved on any public land.
### Q1
Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)
- **Strongly disagree**
- **Other (please specify):**
  - Colorado already has the strictest O&G rules and regs.

### Q2
Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)
- **Strongly disagree**

### Q3
What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)
- **Strongly disagree**
- **Other (please specify):**
  - Please quit letting uneducated paranoid people try to change the law. Coloradoans already voted no on 112 for further setbacks!!

### Q4
Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)
- **Strongly disagree**

### Q5
What is your opinion of the possible application requirements? (See Poster 5 for more information)
- Respondent skipped this question

### Q6
Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)
- Other (please specify):
  - no changes necessary

### Q7
Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)
- **Strongly disagree**
<table>
<thead>
<tr>
<th><strong>Q8</strong> Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

| **Q9** Do you have any other suggestions related to possible oil and gas regulations? | Respondent skipped this question |
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)
Q9 Do you have any other suggestions related to possible oil and gas regulations?

No
#11

Collector: Online responses (Web Link)
Started: Tuesday, September 17, 2019 11:59:25 AM
Last Modified: Tuesday, September 17, 2019 12:04:21 PM
Time Spent: 00:04:56
IP Address: 129.19.1.10

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Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Agree,
Other (please specify):
- Public Health should be number one.
- I agree with public priorities strongly.
- Land Use is first priority of Task Force?
- Reconsider.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
- Agree - Why are so many people on the O&G Task Force connected to the O&G industry?

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Agree

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Neither agree nor disagree

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Neither agree nor disagree
**Q6** Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
- Require a plan for leak detection, reporting and repair
- Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors
- Encourage the application of tankless production techniques
- Require alternative disposal of VOC’s to eliminate flaring
- Encourage on-site use of captured natural gas
- Support pipeline for transportation of resources to limit truck traffic to and from site
- Require water delivery to the site to discourage water hauling

**Q7** Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

- Agree

**Q8** Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

- Neither agree nor disagree

**Q9** Do you have any other suggestions related to possible oil and gas regulations?

- Respondent skipped this question
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

**Disagree,**
Other (please specify):
Set backs are less priority, our community has already voted on and agreed on current set backs. How many times do we have to vote and go over them.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
Where is the interests/protection of land owners and mineral owners in all this? Is the county prepared to manage loss of use proceedings?

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

**Agree,**
Other (please specify):
reluctantly agree, as long as set backs do not increase.

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

**Agree**

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

**Agree**
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

b - Require a plan for leak detection, reporting and repair

Other (please specify):
The technology and systems work as they should now, recent studies have shown our air standards locally to have improved dramatically even though our population has increased dramatically.

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Disagree,
Other (please specify):
Is there factual reasons to increase or ad additional standards? Is something wrong and not working now with these operations? If not, why add more restrictions to an industry that feeds our economy safely. Is adding more restriction just to pacify the out of state extremists?

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Neither agree nor disagree
Other (please specify):
Do we put other industries through this when they expand using our roads.....Walmart? Scheels? Costco? Is the revenue/economy benefits for our area not worth O&G using our roads?

Q9 Do you have any other suggestions related to possible oil and gas regulations?

Safe Industry, good jobs, huge benefit to our economy, schools, parks, housing prices, common lets use common sense here and make changes only if facts deem necessary. Stop the witch hunt and honor OUR VOTE! No more restrictions. Its already sad we are being forced to swallow 181 AFTER our community voted twice.
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information) | Disagree

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information) | Other (please specify): Who pays for accidents/spills, health problems, a decrease in any H2O quality and once they deplete it then what?

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information) | Other (please specify): New developers should have more than a 350' setback

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information) | Disagree, Other (please specify): Neighborhood meeting and public hearings should be required for all applications

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information) | Other (please specify): Plan for departure- clean up etc...
**Q6** Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- **a** - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
- **b** - Require a plan for leak detection, reporting and repair
- Other (please specify):
  - More frequent monitoring - 3rd party

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**Q7** Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

- **Strongly disagree**
- Other (please specify):
  - What happens to the tank containment areas, monitoring H2O quality after they leave?

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**Q8** Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

- Other (please specify):
  - What about impact to wildlife in these areas?

---

**Q9** Do you have any other suggestions related to possible oil and gas regulations?

- Respondent skipped this question
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Other (please specify):
I strongly AGREE with the public priorities I strongly DISAGREE with the Task Force priorities

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
Need more information. *Bonding. If drillers go bankrupt? Let them (O&G) pay for clean-up. It costs $80-100,000 per well to remediate and plug wells

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Other (please specify):
See #4

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Disagree,
Other (please specify):
2500’ minimum setbacks from residential, water sources, hiking trails, natural areas. No drilling in parks or open spaces.

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Other (please specify):
Strong Disagree - Binding. In case of price of oil drops and driller goes bankrupt
### Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

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<tr>
<td>a</td>
<td>Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)</td>
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<tr>
<td>b</td>
<td>Require a plan for leak detection, reporting and repair</td>
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<tr>
<td>f</td>
<td>Encourage on-site use of captured natural gas</td>
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</table>

Other (please specify):
- Impose strict air quality standards, then let O&G pay to meet those standards
- Impose stiff fines for leaks, spills and explosions, etc.

### Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

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|   | Other (please specify):
|   | * Impose strict fines for spills
|   | * Where will water come from?
|   | * Monitor wells for BLOW-OUTS

### Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

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|   | Other (please specify):
|   | With all the drilling activity in our state, why don't we have the best roads in the country? Charge oil and gas industry a fee for using our roads, or raise the taxes they pay.

### Q9 Do you have any other suggestions related to possible oil and gas regulations?

Respondent skipped this question
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Strongly disagree,

Other (please specify):

What about reverse setback for new urban development next to existing wells? These should be the same as new well by existing development. The task force’s top 6 priorities only overlap the public’s priorities in one area - environment. The composition of the Task Force is heavily weighted with O&G and real estate interests and are NOT representing the public’s priorities. Disband the Task Force and start over with a balanced body and priorities of the public will be represented on the Task Force.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):

NO - the draft purposes speak to "mitigation of adverse impacts" rather than "prevention of adverse impacts". The draft authority and applicability fails to address post application monitoring of permitted wells, new and existing. Monitoring to include: air quality emission (esp. voc/method) water quality (runoff, spills, flooding) Light and noise impacts to surrounding land uses, as well as traffic.

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Strongly disagree,

Other (please specify):

I would like to see the setback for new wells and for new urban development adjacent to the existing wells be determined by scientist data (i.e. blast zone/fire zone spread, emissions fumes, etc. Also, we need to better protect wetland, since there are connected to waters bodies 1000’ ft
<table>
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<tr>
<th>Q4</th>
<th>Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)</th>
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<tr>
<td></td>
<td>Strongly disagree, Other (please specify): The issues are much greater than just setbacks and should include monitoring plans more frequently than semi-annually. What about transportation and processing requirements in reference to water and waste water! (brine and chemicals).</td>
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<tr>
<th>Q5</th>
<th>What is your opinion of the possible application requirements? (See Poster 5 for more information)</th>
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<td></td>
<td>Other (please specify): STRONG DISAGREE - Items #12 - 16 should not just be a &quot;paper plan&quot; but should mandate continuous monitoring and reporting. Again, the plans are for &quot;mitigation&quot; NOT &quot;prevention&quot;</td>
</tr>
</tbody>
</table>
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

a - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator) ,

b - Require a plan for leak detection, reporting and repair ,

c - Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors ,

d - Encourage the application of tankless production techniques ,

e - Require alternative disposal of VOC's to eliminate flaring ,

f - Encourage on-site use of captured natural gas ,

g - Support pipeline for transportation of resources to limit truck traffic to and from site ,

h - Require water delivery to the site to discourage water hauling ,

Other (please specify):

I would encourage the County to require on-site continuous air quality monitoring and reporting. Our area is a non-attainment area and the wells are a major contributor. People are DYING

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Strongly disagree ,

Other (please specify):

NO oil and gas wells, tank batteries etc., within 500 year flood plain. Adopt all "possible standards for the County to consider"
| Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information) | Neither agree nor disagree, disagree  
Other (please specify):  
Shared access to multiple wells should be encouraged to reduce numbers of access roads. |
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<tbody>
<tr>
<td>Q9 Do you have any other suggestions related to possible oil and gas regulations?</td>
<td>Respondent skipped this question</td>
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</tbody>
</table>
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Neither agree nor disagree,

Meaning I agree with the public priorities rather than those of the Task Force. We must make air and water quality the most important considerations: we cannot have oil & gas poising the air and water and wasting water in its operations. The Task Force placing Natural Resources last on the list is simple inexcusable.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Draft purpose seems OK at a first look. The draft authority and applicability seems vague on public impact and only indirectly (see #4) deals with the health, safety and well being of the public, which should be the #1 priority. With purpose defining “necessary” is problematic. Who knows how oil & gas will define that?

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Disagree,

Other (please specify):

setting setbacks do not seem sufficient or consistent. Especially troubling is the wetlands setback of only 500’. Considering the secrecy surrounding fracking chemicals, we simple do not know if 1,000’ is sensible.
**Q4** Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

<table>
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<tr>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
</tr>
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</table>

Other (please specify):

- Initial fees seem pretty low considering profits. Not allowing public participation with approved sites is unacceptable. People used to be involved when risks to their health and safety are evident from oil & gas development.

---

**Q5** What is your opinion of the possible application requirements? (See Poster 5 for more information)

Other (please specify):

- We definitely need bonding in excess of the current standards. Never should any oil & gas company be allowed to abandon wells and leave the clean-up to taxpayers.

---

**Q6** Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- a - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
- b - Require a plan for leak detection, reporting and repair
- e - Require alternative disposal of VOC’s to eliminate flaring
- f - Encourage on-site use of captured natural gas
- h - Require water delivery to the site to discourage water hauling

Other (please specify):

- Be sure to establish baselines so that oil & gas cannot cop out saying it is not their fault.

---

**Q7** Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Other (please specify):

- Yes, again we need a good baseline data on water sources and wetlands. Not enough of a setback in my opinion. Maybe we should monitor the water used by oil & gas in fracking operations- how much is used and wasted, is it possible to reclaim it?
### Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

**Neither agree nor disagree**

Other (please specify):

Yeah, fine. But all these roads can be eliminated if we have standards keeping fly-by-night and greedy companies from trying to frack as much of the county as possible. Roads, roads everywhere.

### Q9 Do you have any other suggestions related to possible oil and gas regulations?

Respondent skipped this question
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Other (please specify):
There should be a moratorium on fracking until the state regs come out. I had to move from Weld county to Larimer because of health impacts from fracking!

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
There should be a moratorium on fracking until the state regs come out. I had to move from Weld county to Larimer because of health impacts from fracking!

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Other (please specify):
There should be a moratorium on fracking until the state regs come out. I had to move from Weld county to Larimer because of health impacts from fracking!

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Respondent skipped this question

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Other (please specify):
There should be a moratorium on fracking until the state regs come out. I had to move from Weld county to Larimer because of health impacts from fracking!

Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

Other (please specify):
There should be a moratorium on fracking until the state regs come out. I had to move from Weld county to Larimer because of health impacts from fracking!
Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Other (please specify):
There should be a moratorium on fracking until the state regs come out. I had to move from Weld county to Larimer because of health impacts from fracking!

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Other (please specify):
There should be a moratorium on fracking until the state regs come out. I had to move from Weld county to Larimer because of health impacts from fracking!

Q9 Do you have any other suggestions related to possible oil and gas regulations?
I worked extremely hard with the operator and COGCC to ensure that the fracking site next to my home had "state of the art" equipment and monitoring. It was considered the "poster child" of excellence in 2014. Nevertheless, I had to move to Larimer for health reasons in 2015. An incident at that site later caused a football game at the high school to be evacuated and the wells are now shut down. I served on the Governor's Oil and Gas Task Force and worked with the industry to improve things for Coloradoans. They basically stonewalled, reneged on promises and worked to protect their bottom line—not people's health, worker's safety or the environment. Do not be naive. Do the will of the people not the industry. You have an opportunity to protect Larimer County. Please do so.
#18

Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Strongly disagree

Other (please specify):
I don't think fracking should even be an option for Larimer County given the 100s of documented scientific studies in peer reviewed journals that show the negative effects on the environment and human health. Many, many locations in the US and around the world have said NO to fracking. We should too. Why should Larimer County be an experimental lab for oil and gas profiteers? The costs are way way too high for now and the future.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Strongly disagree

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Strongly disagree

Other (please specify):
1,000 foot setbacks does not even begin to provide enough protection for the volatile organic compounds leaked at fracking sites. Get real. Have some compassion for pregnant women whose fetuses can be harmed with one exposure of fracking related VOCs. Have some compassion for people with asthma, and the elderly. Read the data, PLEASE.
Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Neither agree nor disagree

Other (please specify):
My first choice is a moratorium on all fossil fuel extraction and investment in renewable sources of energy. If fracking is allowed, all applications should meet to more stringent set of criteria. Well publicized neighborhood meetings are a must. The fees should include clean up costs up front for capping wells, and jail terms for persons responsible for leaving abandoned wells to leak dangerous chemicals.

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Other (please specify):
All 29 steps are necessary. Neighborhood groups should be able to review the plans. Also, let's replace the term "odor" with what it is—chemical exposure. Mitigation will never make the land whole again. Fracking is a lose-lose proposition. We don't need it in the 21st century.
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
- Require a plan for leak detection, reporting and repair
- Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors
- Encourage the application of tankless production techniques
- Require alternative disposal of VOC’s to eliminate flaring
- Encourage on-site use of captured natural gas
- Require water delivery to the site to discourage water hauling

Other (please specify):
Continuous 24/7 air and water monitoring by a competent non industry organization is absolutely essential. Bi-annual is not adequate. Again, we do not have to allow fracking at all. Investing in renewable energy is the way to go.

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Neither agree nor disagree
Other (please specify):
Keep fracking away from water sources as far as possible. Test water 24/7. People in TX have had to leave their homes due to the pollution caused by fracking. Is this what we really want?

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Neither agree nor disagree
Other (please specify):
Taxpayer dollars should no be used for road repair caused by fracking vehicles.
Q9 Do you have any other suggestions related to possible oil and gas regulations?

MORATORIUM on oil and gas, and joining the 21st century by developing and incentivizing renewable energy sources.
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<tr>
<th>#19</th>
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Q9 Do you have any other suggestions related to possible oil and gas regulations?

Larimer County will have few applications for oil and gas operations compared to its neighbor to the east, Weld County. I suggest, as a former legislator who represented parts of Larimer that have some oil and gas and as a former Weld County Commissioner, that Larimer either completely mimic Weld's already adopted regulations or seek an IGA with Weld and pay Weld to process applications within Larimer. It would be way cheaper than to have all the expertise required to process so few applications.
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)  
Strongly agree

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)  
Strongly agree

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)  
Strongly agree

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)  
Strongly agree

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)  
Strongly agree
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
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- Support pipeline for transportation of resources to limit truck traffic to and from site
- Require water delivery to the site to discourage water hauling

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Strongly agree

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Strongly agree

Q9 Do you have any other suggestions related to possible oil and gas regulations?

Respondent skipped this question
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Agree,
Other (please specify):
I agree with what the Task Force has put as top regulation priorities. As for the public results, I think more education is needed in these areas. CDPHE is revamping its regulations now to deal with air quality and will establish more inspections and reporting requirements than what is required currently. Having the County add to it may just be a paperwork exercise rather than achieving any actual benefit.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Agree

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Neither agree nor disagree,
Other (please specify):
The planning process should be similar regardless of set-back requirements. Operators should have the option of working with landowners on set-backs if they are seeking less than the proposed set-back requirements.

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Disagree,
Other (please specify):
The review process should first look to see if the issues can be resolved or worked out with landowner rather than go straight to Special Review or public hearing process.
Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Other (please specify):
I agree that an air quality plan is needed, but requiring base air quality readings for the proposed site is a little far fetched at this point. Trying to decide what type of monitoring and equipment to be used at this point is subjective. When does the study begin? What pollutants would you be looking for? What part of the year? How about other industries in the area are they going to be required to conduct similar studies or be a part of current studies? What is an acceptable level of emissions? No criteria has been set.

Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

c- Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors

d - Encourage the application of tankless production techniques

f - Encourage on-site use of captured natural gas

g - Support pipeline for transportation of resources to limit truck traffic to and from site

h - Require water delivery to the site to discourage water hauling

Other (please specify):
We need to leave the air quality monitoring and plans for leak detection and repair up to the CDPHE as they are working on revamping current regulations. Air quality monitoring on a bi-annual basis is not going to provide information that will be useful for compliance purposes. It is a snapshot in time and does not take into consideration other construction or development that may occur around the subject site. Again, is the County going to require other industries to conduct air monitoring of their activities at the same frequency? I'm not sure what is meant by alternative disposal of VOC's to eliminate flaring. You do not dispose of VOCs. This would be covered under f. - Encourage on-site use of captured natural gas. You can encourage on-site use of storage tank vapors.
Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Agree,
Other (please specify):
Need to show caution on water quality plan that includes baseline testing of lakes, ponds, etc. Are other industries required to do this? Construction industry with its runoff have chance to impact water ways. Having proper secondary containment and stormwater controls in place should suffice and sampling only conducted if contaminants have potentially reached bodies of water.

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Agree

Q9 Do you have any other suggestions related to possible oil and gas regulations?

Respondent skipped this question
### #22

**Collector:** Online responses (Web Link)

**Started:** Monday, September 23, 2019 12:56:44 PM

**Last Modified:** Monday, September 23, 2019 12:59:20 PM

**Time Spent:** 00:02:35

**IP Address:** 69.85.139.10

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**Q1** Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

- Disagree

**Q2** Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

- Disagree

**Q3** What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

- Disagree

**Q4** Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

- Disagree

**Q5** What is your opinion of the possible application requirements? (See Poster 5 for more information)

- Disagree

**Q6** Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- f - Encourage on-site use of captured natural gas

**Q7** Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

- Disagree

**Q8** Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

- Disagree
Q9 Do you have any other suggestions related to possible oil and gas regulations?

Respondent skipped this question
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Agree,
Other (please specify):
Nuisance issues tend to be temporary and therefore should be ranked lower than impacts that are more long-lasting and pervasive.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
"Minimal impact" is too subjective. There should be clear standards. If they can't be met--no permit.

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Strongly disagree,
Other (please specify):
Proposed set-backs are not sufficient. Scientific research indicates that significant negative health impacts are associated with living within a 2 mi. radius of wells. Anything closer than 2,000' is ludicrous! The numbers on the chart seem arbitrary or at best based on out-dated regulations.

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Disagree,
Other (please specify):
If the proposal doesn't meet requirements, why should it be considered via a special review process?!
Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

The devil is in the details. There are very few details here! To state that an operator must have "a plan" for waste mitigation or emergency planning, or whatever, doesn't say anything about what those plans must include. What criteria will be applied to distinguish a good plan from a bad plan? In addition we need to include requirements for 24/7 methane monitoring; sufficient bonding to cover costs of sealing (and eventually resealing in perpetuity) all wells and for removing abandoned pipeline; agreement to cease operations on high ozone days; procedures for notifying the public of leaks, explosions, etc. immediately upon discovery; set-back regulations for all pipelines.

Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

a - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)

b - Require a plan for leak detection, reporting and repair

c - Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors

d - Encourage the application of tankless production techniques

e - Require alternative disposal of VOC's to eliminate flaring

f - Encourage on-site use of captured natural gas

g - Support pipeline for transportation of resources to limit truck traffic to and from site

h - Require water delivery to the site to discourage water hauling

Other (please specify):
This is the best poster yet!! It includes details! Kudos to whoever prepared this.
Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Disagree. Other (please specify): Too weak. We need to look at what companies are being charged for water that has to be taken out of the water cycle. How will quantities be regulated?

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Neither agree nor disagree. Other (please specify): Didn't have time to look at this one. (It was kind of hidden.)

Q9 Do you have any other suggestions related to possible oil and gas regulations?

Bottom line: According to a just released state report the oil and gas industry has never had a profitable quarter in Colorado. They are staying afloat by racking up debt. We need to stop evaluating every regulation on the basis of whether or not it is financially viable for this failing industry. They need to absorb all the costs associated with their operations, including the negative externalities that have been foisted upon the public in terms of degraded air quality, safety issues, water contamination, hazardous waste—not to mention global warming—or close up shop. According to SB181 regulations should give priority to public health and safety and the environment. This is what the citizens of Larimer County are expecting and deserve.
| Q1 | Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information) | Strongly disagree |
| Q2 | Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information) | Strongly disagree |
| Q3 | What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information) | Strongly disagree |
| Q4 | Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information) | Strongly disagree |
| Q5 | What is your opinion of the possible application requirements? (See Poster 5 for more information) | Strongly disagree |
| Q6 | Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information) | f - Encourage on-site use of captured natural gas |
| Q7 | Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information) | Strongly disagree |
| Q8 | Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information) | Strongly disagree |
| Q9 | Do you have any other suggestions related to possible oil and gas regulations? | Respondent skipped this question |
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Strongly disagree

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Strongly disagree

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Strongly disagree

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Strongly disagree

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Strongly disagree

Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

f - Encourage on-site use of captured natural gas

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Strongly disagree

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Neither agree nor disagree
Q9 Do you have any other suggestions related to possible oil and gas regulations?

I feel that our economy needs a strong oil and gas program. Weld County is an example of how a strong oil and gas program helps a state.
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information) Disagree

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information) Disagree

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information) Disagree

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information) Disagree

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information) Disagree

Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- Require a plan for leak detection, reporting and repair
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- Support pipeline for transportation of resources to limit truck traffic to and from site

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information) Disagree
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Strongly agree

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
Mostly agree, but are not stringent and specific enough

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Other (please specify):
The distances identified are too close to residential and sensitive communities (e.g., school and health care facilities), and to environmentally sensitive areas. There should be NO operations on open space/natural lands.

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Other (please specify):
The first tier appears to be at risk of becoming industry-driven rather than by the desires and expectations of county citizens. The administrative process as proposed needs MUCH more public notification and input and to be more responsive to and protective of health and the environment. Also, one person having sign-off is NOT a good idea, gives industry too much opportunity for influence - influence that the public would be blind to.

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Other (please specify):
Good list to begin with. Now, please include other areas of concern, including requirements for enforcement, penalties, and regular neutral, 3rd-party monitoring.
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
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- Support pipeline for transportation of resources to limit truck traffic to and from site
- Require water delivery to the site to discourage water hauling

Other (please specify):
Change "encourage" to require and remove the flexibility for non-compliance.

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Other (please specify):
Omits standards that should be included. This section should be much stronger in protection of the county’s limited water supplies. Will the county ignore the demands on fresh water by households and agriculture? How will the county replace all the millions (billions?) of gallons of water drilling operations will require?

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Other (please specify):
Much too superficial!
Q9 Do you have any other suggestions related to possible oil and gas regulations?

No flaring. Period.
No open pits. Period.
No operations on open space or natural lands.
And, how does the county plan to compensate for all the VOC’s our citizens are exposed to due to Weld County operations? Or does the county plan just to add to it and pretend short-term high paying jobs that cause long-term damage to our health and the environment are more important than long-term, healthy local food production and the health and safety of our citizens and our environment??
Thanks for all your hard work. Please do it with long-term goals in mind.
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information) Neither agree nor disagree

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information) Neither agree nor disagree

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information) Neither agree nor disagree

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information) Agree

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information) Agree

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Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information) Agree

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Q9 Do you have any other suggestions related to possible oil and gas regulations?

no
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Q9 Do you have any other suggestions related to possible oil and gas regulations?  
Respondent skipped this question
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Other (please specify):
While I agree in general with the items and order given in the public comments, I strongly disagree with the order of priority in the task force column.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
While I do agree with the Purpose, Authority and Applicability of SB 181 as it pertains to Larimer County, I believe the activities of the task force are premature. The state will be setting certain minimum standards that Larimer will need to abide by. At the last Task Force meeting, lower standards for set backs than those likely to come from the state were receiving serious discussion.

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Other (please specify):
Unless I am strongly mistaken, a recent article in the Denver Post indicated that current interim setback standards for approval of state well drilling permits are at least twice what is listed in poster 4. Again we should be waiting to see what the state does first before Larimer does anything. In the interim, there should be a moratorium on new permits until both new state and county regulations are in place.

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Strongly disagree
Other (please specify):
I believe all well permit applications should follow the Special Review Process.

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Strongly agree
**Q6** Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator),
- Require a plan for leak detection, reporting and repair,
- Require alternative disposal of VOC's to eliminate flaring,
- Support pipeline for transportation of resources to limit truck traffic to and from site,
- Require water delivery to the site to discourage water hauling,

Other (please specify):

Items d and f should be required not just encouraged. As far as item c goes if an analysis shows this is feasible, it should also be mandatory. If natural gas generated on the site can not be used, it should be mandatory to capture and use elsewhere instead of flaring it off. I believe there should be no uncaptured VOC emissions.

**Q7** Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Agree,

Other (please specify):

I believe bullet four under water quality should read, Berokee containment areas........ The possible standards for consideration should be mandatory standards.

**Q8** Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Agree,

Other (please specify):

While I agree with the general statements on Poster 8, I also believe the Permittee should be required to post a bond to cover any work needed to repair long term damage to roads and/or subgrade by well and tank site truck usage. The bond to be released only upon restoration of the site after the site is no longer functional.

**Q9** Do you have any other suggestions related to possible oil and gas regulations?

My final comment is that every new oil or gas well drilled is a denial of the impacts that burning fossil fuels has on global warming. Oil and gas use and production needs to be reduced as soon as possible.
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Other (please specify):
I am in general agreement with the regulation priorities from the public and strongly disagree with the priorities identified by the Task Force especially when it comes to air and water quality.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
I feel the county is rushing thru this process and am not clear as to why it is not in the interest of our community to wait until the regulations have been promulgated as a result of Senate Bill 181 and then address the needs of our community as it relates to oil and gas regulations.

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Strongly disagree
Other (please specify):
There should be a moratorium on new permits until both new state and county regs are in place.

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Strongly disagree
Other (please specify):
All well permit applications should follow the Special Review Process.

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Strongly agree
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
- Require a plan for leak detection, reporting and repair
- Require alternative disposal of VOC's to eliminate flaring
- Support pipeline for transportation of resources to limit truck traffic to and from site
- Require water delivery to the site to discourage water hauling

Other (please specify):
Items d & f should be required. Regarding item c - If analysis shows it is feasible to be electrified then it should be mandatory.

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Agree,
Other (please specify):
The 'possible standards' listed for the County to consider should be required.

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Agree,
Other (please specify):
I am concerned with long term damage and who will bear the costs of repairs.

Q9 Do you have any other suggestions related to possible oil and gas regulations?

Methane gas is a key contributor to climate change as it traps heat at 84 times the rate of CO2 contributing towards 25% of global warming. Unlike CO2 which reductions can take decades before showing up in reducing climate impacts, reductions in methane have an almost immediate impact. We need all the climate levers we can pull. It would be a criminal regulation to make allowances for any escape of methane from well drilling and storage sites.
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Other (please specify):
I agree with the PUBLIC because Air & Water Quality and the environment are the most important factors not land use and setbacks like the task force has identified.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
I would hope that setbacks although not stated fall in one of the categories mentioned. Appropriate setbacks in the realm of 2500 feet from schools, buildings and playgrounds, homes, hospitals and public facilities should be seriously considered! I hope the county will due PROPER DUE DILIGENCE (DD) on all applications including the operator's financial securities, indemnification and insurance.

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Strongly disagree
Other (please specify):
I would hope appropriate setbacks in the realm of 2500 feet from schools, buildings and playgrounds, homes, hospitals and public facilities should be seriously considered and adopted!

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Strongly disagree
Other (please specify):
Meetings with neighbors who fall within 2500 feet, along with Public Hearings should be a requirement of either tier. Application or permits fees are too low as well.
Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

I would add that the operator should have to demonstrate financial capabilities that would be able cover the costs should problems arise such as spills, fires, explosions .... so the public doesn’t have to pay for them or any reclamation if the operator fails to live up to their responsibilities. All of these applications and processes should be considered public with documents open for inspection by the public and copies made upon request.

Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

    a - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
    b - Require a plan for leak detection, reporting and repair
    c - Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors
    d - Encourage the application of tankless production techniques
    e - Require alternative disposal of VOC’s to eliminate flaring
    f - Encourage on-site use of captured natural gas
    g - Support pipeline for transportation of resources to limit truck traffic to and from site
    h - Require water delivery to the site to discourage water hauling

Other (please specify):

Require Bi-Annual Third-Party Air Quality Monitoring (paid by oil and gas facility owner/operator) but verified by and approved by county staff, BOCC or some other public focused entity.
Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Other (please specify):
Require a water quality plan that includes baseline testing of water drinking wells and lakes with annual third-party monitoring and reporting of drinking water reservoirs and wells. The 3rd party should be approved by county staff, BOCC or some other public focused entity.

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Other (please specify):
I would hope that the fees being considered and paid for by the O&G Operator would be to the damage done to the public roadways by the heavy O&G equipment and vehicles that access them. If this is covered in the Require Capital Transportation Expansion fees then great but if not then it should be.

Q9 Do you have any other suggestions related to possible oil and gas regulations?

I would hope that the entire process including but not limited to permitting, transportation, financial viability, air, water qualities and environmental issues are considered public with the public having access to all of the information upon request. Transparency in this entire process is paramount if the public trust is to be expected or gained!
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Disagree,
Other (please specify):
Air quality and water quality are in more need of strict regulations to assure water and air quality. I would think that Nuisance and Transportation already have regulations that just need reviewed and enforcement.

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
Agree, except that date by December 2019.

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Disagree,
Other (please specify):
1/4-1/2 mile for those listed as 1000’ on chart #4; 1000’+ for Outdoor activities, trails, wetlands.

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Other (please specify):
Neighborhood Meetings and Public Hearings should be required on all Public Site Plans.

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Agree
Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- a - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator)
- b - Require a plan for leak detection, reporting and repair
- c - Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors
- d - Encourage the application of tankless production techniques
- e - Require alternative disposal of VOC’s to eliminate flaring
- f - Encourage on-site use of captured natural gas

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Agree

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Neither agree nor disagree

Other (please specify):
Cost for building access and haul roads should be paid by O&G

Q9 Do you have any other suggestions related to possible oil and gas regulations?

No, but thank you for asking.
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<th>Q1</th>
<th>Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)</th>
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<td>Strongly disagree</td>
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<td>Q3</td>
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<td>Strongly disagree</td>
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Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications?  
(See Poster 8 for more information)  

Strongly disagree

Q9 Do you have any other suggestions related to possible oil and gas regulations?

In the United States, we only produce 12 million barrels of oil per day and we need over 21 million. We are choked by foreign countries as we need to be able to drill in the U.S.A.
#35

**Q1** Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

**Disagree,**

Other (please specify):
If you choose to allow this, air quality should be top priority, please do something more! The emissions from oil and gas are a major contributor to our ozone and greenhouse gases. Complacency is unacceptable and negatively affects public health. We can’t do anything about weld but we need to do something to cut emissions here as much as possible

**Q2** Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Other (please specify):
I agree that the health and safety and welfare should be protected and promoted. However, I do not see that possible by putting industrial sites within 1,000 feet of homes. How is this promoting our health in this county?

**Q3** What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

**Strongly disagree,**

Other (please specify):
Although I agree setbacks need to be increased beyond what they are now, 1,000 ft is not enough. Based on data, I’d say 2,500 ft is better but still not enough. Also, I’m confused by the setbacks and procedures. Are these distances not actual setbacks but just used to decide which procedure is used? Definitive setbacks are needed in order to protect public health, safety, and welfare, our wildlife and the environment.
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<th>Response</th>
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<td>Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)</td>
<td>Disagree, Other (please specify): I think most if not all applications should be special review. Administrative review only makes sense in the middle of nowhere, not 1001 ft from a home or school. That’s insane.</td>
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<td>Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)</td>
<td>Other (please specify): Agree but I’d add company violations history report for all states not just Colorado and require background checks on all employees</td>
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<td>Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)</td>
<td>a - Require bi-annual third-party air quality monitoring (paid by oil and gas facility owner/operator), b - Require a plan for leak detection, reporting and repair, e - Require alternative disposal of VOC’s to eliminate flaring, Other (please specify): Do “encourage and support” change anything really? Why bother? Put in regulations that actually improve our air. Require a plan and then enforce it.</td>
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<td>Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)</td>
<td>Agree, Other (please specify): I’d like to see the county not selling our water to this industry. Protect and preserve our water.</td>
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<td>Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)</td>
<td>Agree</td>
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<tr>
<td>Q9 Do you have any other suggestions related to possible oil and gas regulations?</td>
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Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)?
(See Poster 2 for more information)
Disagree

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)
Disagree

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)
Strongly disagree

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)
Agree

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)
Neither agree nor disagree

Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)
g - Support pipeline for transportation of resources to limit truck traffic to and from site

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)
Strongly disagree

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)
Neither agree nor disagree
Q9 Do you have any other suggestions related to possible oil and gas regulations?

Revenue and jobs from oil and gas are good for Colorado
Q1 Do you agree with the top regulation priorities identified by the Task Force and public (including land use, air quality, setbacks, water quality, environment, nuisance issues, natural resources, and transportation)? (See Poster 2 for more information)

Disagree

Q2 Do you agree with the draft purpose, authority and applicability statements? (See Poster 3 for more information)

Disagree

Q3 What is your opinion of the possible siting setbacks and threshold criteria for deciding what planning review process to use? (See Poster 4 for more information)

Disagree

Q4 Do you agree with pursuing a tiered approach to determine what type of planning review process to use? (See Poster 4 for more information)

Disagree

Q5 What is your opinion of the possible application requirements? (See Poster 5 for more information)

Disagree

Q6 Do you agree with possible air quality standards to address in County oil and gas applications? Which topics should be addressed? (check all that apply) (See Poster 6 for more information)

- Require a plan for leak detection, reporting and repair
- Support pipeline for transportation of resources to limit truck traffic to and from site

Q7 Do you agree with the possible water quality standards to address in County oil and gas applications? (See Poster 7 for more information)

Disagree

Q8 Do you agree with the possible access and haul road standards to address in County oil and gas applications? (See Poster 8 for more information)

Disagree
Do you have any other suggestions related to possible oil and gas regulations? 

Respondent skipped this question