



September 5, 2024

Arapahoe County  
Board of County Commissioners  
5334 S. Prince Street  
Littleton, CO 80120

Submitted via: <https://s.alchemer.com/s3/Oil-and-Gas-Phase-2B-Comment>

Dear Commissioners,

The American Petroleum Institute Colorado (API Colorado) and the Colorado Oil & Gas Association (COGA), on behalf of their members, appreciate the opportunity to comment on Arapahoe County's (the County) Phase 2B process amending its land use planning requirements to address oil and gas exploration and development.

API Colorado and COGA would like to remind the Board of County Commissioners that while Senate Bill 19-181 provided local governments additional regulatory authority over oil and gas development, any regulations must address surface impacts only, be both necessary and reasonable, and require basis that is supported by substantial evidence. Since the passage of SB19-181, the legislature and regulating agencies have consistently updated and created new rules addressing oil and gas development. Colorado's oil and gas industry continues to innovate, adopting new technologies and safeguards and often does so ahead of regulatory requirements. As the County considers its fourth rulemaking in three years, we continue to encourage alignment with the Colorado Energy and Carbon Management Commission (ECMC) rules including the use of consistent standards and practices. As such, we propose the following revisions:

#### **F. Standards Required for Oil and Gas Facilities**

##### **9. Water Supply and Disposal**

- c.** The County proposes prohibiting commercial wastewater injection wells. API Colorado and COGA note this may have the unintended consequence of causing increased truck traffic as waste is transported outside of the County.

##### **10. Groundwater and Surface Water Sampling and Monitoring**

For all water sampling and monitoring requirements established by the County, API Colorado and COGA continue to encourage alignment with the ECMC rules and appropriate definitions. The state's requirements were established after a thorough rulemaking process with expert witnesses, testimony, and data.

- b and j.** The County requests that operators conduct water testing including in, what the County refers to, as "intermittent (ephemeral) waters." We note the Environmental Protection Agency (EPA) defines intermittent and ephemeral waters as distinct aquatic bodies. For clarity, unless another definition is provided by the state, we suggest the



County align with the EPA and not conflate the two. For reference, the definitions<sup>1</sup> are included below.

*Ephemeral stream:* An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

*Intermittent stream:* An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

We urge the County to establish broader guideposts for when the testing of intermittent and ephemeral streams is necessary. By definition, many of these waters, especially the ephemeral ones, are small volume flows that exist for only a short duration after unpredictable weather or precipitation events when knowledge of or access to sites may not necessarily be practical.

We also note 10.b. requires baseline water testing of both intermittent and ephemeral streams. The data from these tests is unlikely to be reliable. Because intermittent and ephemeral streams are dependent upon unpredictable and inconsistent weather events, these baseline tests may differ so substantially from future tests that the results will not be reliable comparators. Moreover, with these waters again existing only temporarily and some only at certain times of the year, conducting the requisite baseline testing could delay constructions substantially, potentially pushing projects into the next calendar year if practical weather timeframes are exhausted while waiting for an intermittent or ephemeral flow to facilitate the requisite test.

I. This provision requires operators to notify the County and implement an action plan with corrective measures when contamination is present. We note this does not consider when contamination is present that is not attributable to an operator. We recommend the County factor this into consideration and address it in the proposed rules.

## **11. Air Quality Monitoring**

As additional requirements are proposed related to air monitoring, we remind the County that the Air Pollution Control Division (APCD) is currently developing methodology for modeling toxic air contaminants in the state. Driven by HB22-1244, this work will establish a new program to regulate specific air pollutants. The list of air pollutants will be continuously updated and may go beyond what the County proposes. As such, we recommend Arapahoe County rely on the state's program.

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<sup>1</sup> Environmental Protection Agency. Glossary. [https://www.epa.gov/sites/default/files/2016-02/documents/realestate\\_glossary.pdf](https://www.epa.gov/sites/default/files/2016-02/documents/realestate_glossary.pdf)



#### **d. Air Quality Monitoring**

The County seeks to require operators to collect periodic canister samples “...when health guidelines are exceeded during the drilling, completion, and production phases of development.” We note the County does not list the health guidelines and therefore we seek further information about the health guidelines the County is employing in the requirements so that operators may comply accordingly.

ii. The County proposes requiring air sampling devices to collect air samples when monitor levels reach 1 ppm average, over one-hour, total VOCs. We note this monitoring does not appear to consider baseline monitoring. Instead, we recommend the County set a level that is relative to the baseline. We also recommend referring to federal guidelines, specifically OOOOabc found at 40 CFR 60.5397b(c)(8), and align the definition of a leaking fugitive emissions component, which is set at 500 ppm. The requirements for continuous air monitoring also appear to be duplicative with the leak detection and repair (LDAR) provisions in 11.d.xv. We seek to understand the County’s justification for requiring both continuous monitoring and monthly LDAR inspections. To address the duplication, we suggest the County defer to the state’s LDAR requirements as well as those found in OOOOb.

iii. Minimization of Canister-Triggerring Emission Events. The County’s proposed requirements in this section are overly prescriptive. Instead, we suggest the County ask operators to apply best management practices that minimize canister-triggering events.

xv.(e). API Colorado and COGA seek clarification around the County’s proposed requirement that an IR camera video be provided if requested by the County. It is unclear if the only acceptable verification method is video from an IR camera, and we note that leaks can often be repaired and verified using Method 21. We also request additional information from the County about the length of time videos are to be retained and the format in which they are to be submitted to the County.

#### **m. Air quality mitigation plan shall include measures to be taken on Ozone Air Quality Action Days.**

i. To reduce emissions during air quality action days, the County asks operators to postpone maintenance activities. If the County aims to prioritize health and safety, we recommend allowing construction and maintenance when necessary.

xiv. API Colorado and COGA seek clarity on when quarterly reports will be due.  
(c). This provision requires operators to comply with federal and state regulations, particularly as they are revised and updated. While we appreciate that the County acknowledges air monitoring requirements already in place at the state and federal levels, we note that if the County implements its own set of rules, it may create confusion and be too narrow. The Colorado Department of Public Health and



American Petroleum Institute

Colorado



Environment's (CDPHE) regulations for existing facilities are more comprehensive and thorough than the County's proposal. The County should require compliance with state and federal regulations for oil and gas sources.

**L. Financial Assurance.**

**3. State and Federal Bonding Requirements**

API Colorado and COGA remind the County that downhole work, including plugging and abandonment and site reclamation, are within the exclusive jurisdiction of the ECMC. The County does not address how financial assurance funds would be used, since the state would assume authority over orphaned wells. Accordingly, there is no reason for the County to demand local-level financial assurance for such work. API Colorado and COGA note the state has spent considerable time establishing its financial assurance rules with a thorough rulemaking and we suggest the County defer to the ECMC's rules.

API Colorado and COGA once again appreciate the opportunity to provide comments on these proposed changes and ask that the County address these provisions. Colorado's oil and gas industry looks forward to working with the County in developing standards for safe and reliable operation. Thank you.

Sincerely,

Alejandra Major  
Associate Director  
API Colorado  
majora@api.org

William Groffy  
Sr. Director of Regulatory and Legislative Affairs  
Colorado Oil & Gas Association  
william.groffy@coga.org

September 11, 2024

Ms. Ava Pecherzewski, AICP  
Development Review Planning Manager  
Public Works and Development  
6924 S. Lima St.  
Centennial, CO 80112

**Subject: Fiscal Impact of Proposed 1,000' Reverse Setback Requirement on Sky Ranch Master Planned Community**

Dear Ms. Pecherzewski;

I am writing to highlight the significant fiscal and developmental impacts that the proposed 1,000-foot reverse setback requirement for oil and gas (O&G) regulations would have on the Sky Ranch Master Planned Community ("Sky Ranch") in Arapahoe County. Pure Cycle is a developer of master-planned communities and has invested substantially in the approximately 930-acre Sky Ranch development.

Over the past six years, we have invested over \$75 million in public improvements, including roads, parks, open spaces, stormwater facilities, and have partnered with National Heritage Academy who will invest approximately \$40 million in public schools at Sky Ranch. These efforts have helped position Sky Ranch as one of the premier master-planned communities in the Denver metropolitan area.

**Existing Investments and Surface Use Agreements**

These investments were made based on Arapahoe County's existing zoning and O&G regulations, particularly the 500-foot reverse setback requirement. Sky Ranch entered into two surface use agreements for O&G pad sites that complied with this 500-foot setback, carefully planning our land use to ensure compatibility with the County's regulations and to assure we could fund our public improvements from development within the limits of the 500-foot setback requirements. Further, we required that drilling occur within a set time frame to ensure the setbacks were met and aligned with the Sky Ranch Master Plan Development timeline.

**The Proposed 1,000' Setback and Its Devastating Fiscal Impact**

The proposed increase to a 1,000-foot setback would have significant negative fiscal and developmental impacts—not just on Sky Ranch, but for all landowners who agreed to O&G pad sites under the current 500-foot rule.

As illustrated in **Exhibit A**, a typical 15-acre multi-well O&G pad site with a 500-foot setback results in about 72 acres of encumbered unusable land. If the setback is increased to 1,000 feet, this encumbered unusable area expands to 163 acres—an increase of 225%. This expanded footprint dramatically reduces the value and usability of adjacent properties.

In cases where neighboring parcels exist within a 160-acre quarter section, if one landowner agrees to a 15-acre O&G pad site, the new 1,000-foot setback would severely impair the surrounding property owners' land without their consent. In essence, the regulation would result in a "taking" of property value,



as adjacent owners would be unable to fully utilize their land for the average 50-year life of an O&G well having taken no action of their own.

### **Impact on Sky Ranch**

At Sky Ranch, the increase to a 1,000-foot setback would eliminate more than 300 homes from our current zoning plan (**Exhibit B**). With an average home value of \$500,000, this would result in a loss of approximately \$150 million in assessed property value. More critically, this translates into a \$35 million reduction in bonding capacity to repay public improvements such as roads, stormwater improvements, parks, open spaces, and the I-70 Monaghan Interchange.

The ripple effects extend to water and wastewater system development fees. Based on Rangeview Metropolitan District's average water and sewer system development fees, this reduction would lead to a loss of over \$10.5 million in system development fees—funds which are to help repay for invests in renewable water supplies and for constructing it's state-of-the-art water reclamation facility. The loss of system development fees will likely result in significant increases to Sky Ranch water and sewer rates for existing customers.

Perhaps the most significant impact will be felt by the local school district. Each single-family home adds 0.78 students to the district. The loss of 300 homes translates into the loss of 234 students, which would result in an annual reduction of approximately \$2.34 million in per-pupil funding from State and local school tax revenue (approximately \$10,000 per student)—or an estimated loss of \$70 million over the next 30 years.

In total, the fiscal impact to Sky Ranch exceeds \$110 million in public funding, jeopardizing our ability to continue this project, which is regarded as one of the most fiscally responsible master-planned communities in the metro area.

### **Comparison with City of Aurora Regulations**


By comparison, the City of Aurora's current policy is a 150-foot reverse setback from the wellhead to a residential property boundary (**Exhibit C**). Applying Aurora's regulation to the same 15-acre pad site in Aurora the reverse setback regulation would have no negative impact on surrounding properties as it would not extend beyond the boundary of the pad site (**Exhibit D**). The vastly different regulations between these jurisdictions would cause pad sites in Aurora with no encumbrances, to have significant encumbrances to neighboring property in Arapahoe County where the land owner had no input on siting the pad site (**Exhibit E**). This illustrates the importance of Arapahoe County carefully considering the consequences of any proposed changes to existing regulations.

### **Conclusion and Request for Reconsideration**

It is crucial for Arapahoe County to fully evaluate the wide-ranging impacts of its regulations on property owners and stakeholders. The current 500-foot reverse setback was incorporated into our Sky Ranch master plan after thorough analysis and careful planning. Altering this requirement retroactively would not only undermine those efforts, but also result in substantial legal challenges due to the devaluation of surrounding properties.

We strongly urge the County to reconsider the proposed regulation to avoid devastating financial impacts on existing developments, and to preserve the value of property in Arapahoe County.

Sincerely,

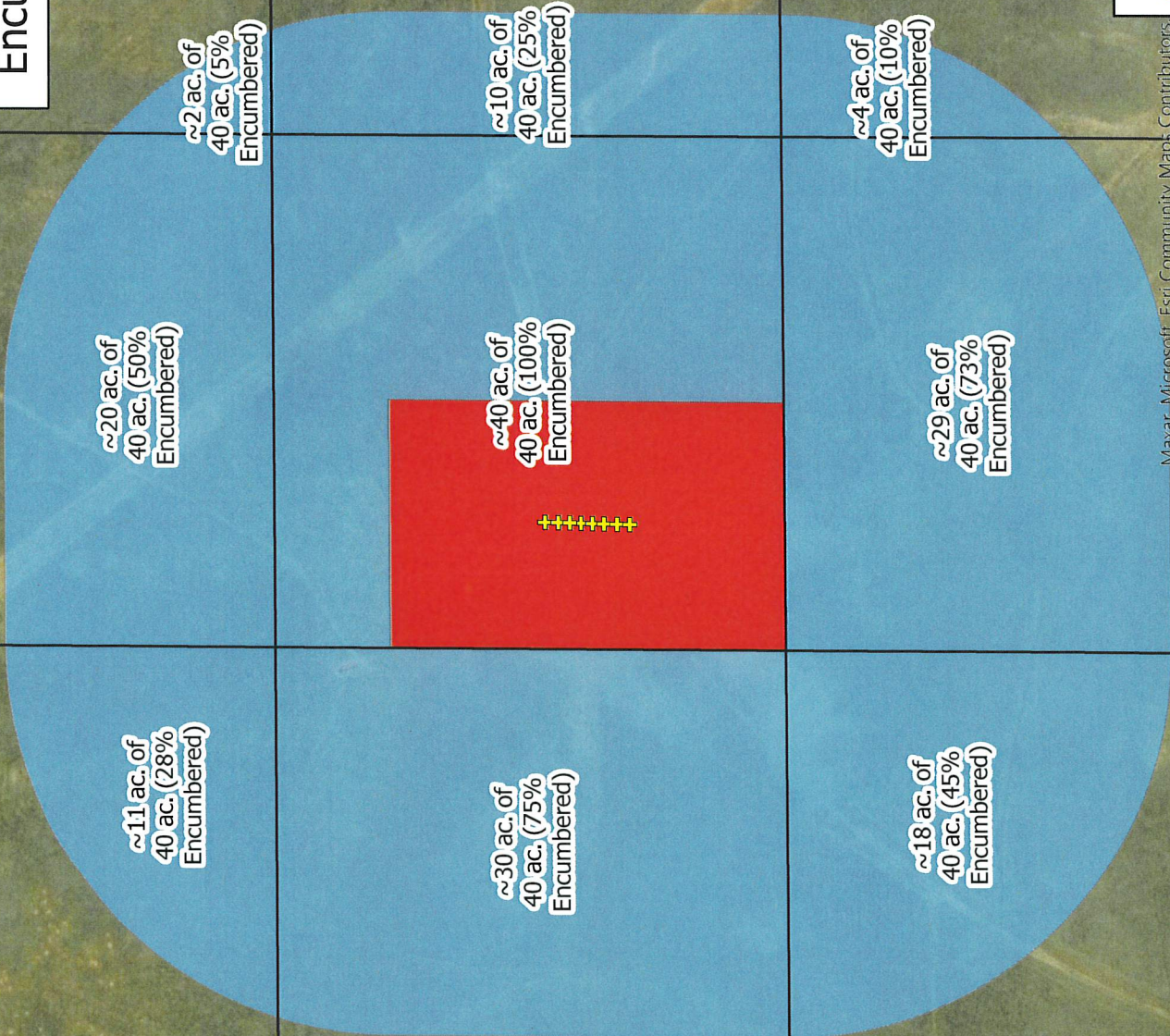


Mark Harding  
President





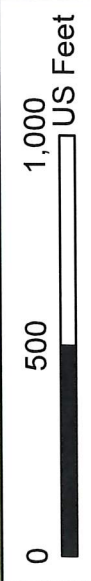
# EXHIBIT A - County 1,000 Foot Setback Encumbrance Illustration



Maxar, Microsoft, Esri Community Maps Contributors,  
County of Arapahoe, © OpenStreetMap, Microsoft, Esri,  
Inc. METI/NASA, USA

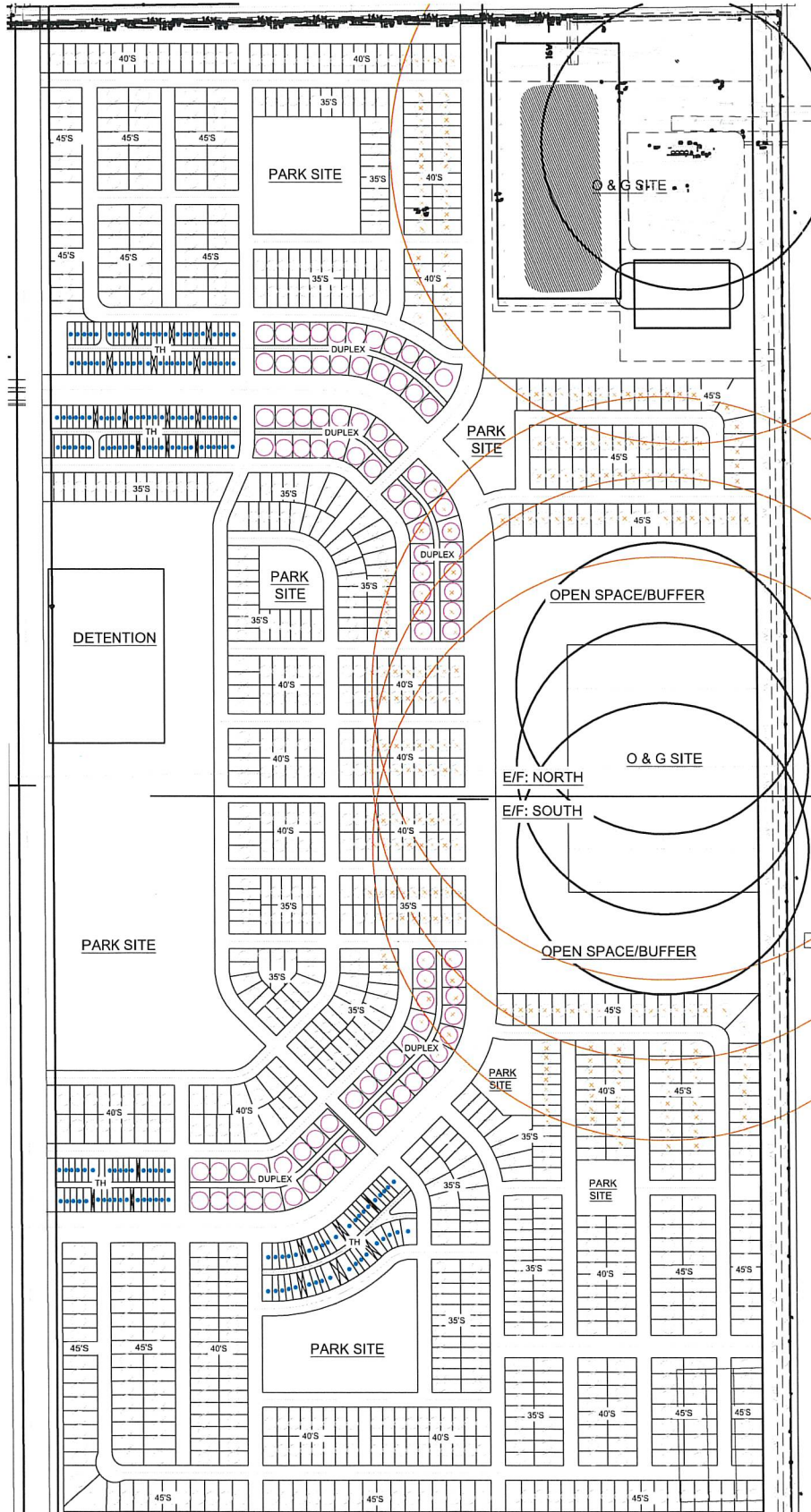
Legend:

- Proposed Wellhead
- Proposed Well Pad (8 Well - 15 Acre Pad)
- 1,000 Foot Setback
- Property Boundary





# Exhibit B (Sky Ranch 1,000' setback Impact)



**SKY RANCH - NEIGHBORHOOD E/F NORTH**

**LOT TYP:**

- 35' x 100' : 112
- 40' x 100' : 137
- 45' x 110' : 137
- DUPLEX : 106
- TOWNHOME : 99

**TOTAL NORTH: 591**

**SKY RANCH - NEIGHBORHOOD E/F SOUTH**

**LOT TYP:**

- 35' X 100' : 185
- 40' X 100' : 196
- 45' X 110' : 194
- DUPLEX : 76
- TOWNHOME : 71

**TOTAL SOUTH: 722**

**OVERALL TOTAL : 1,313**

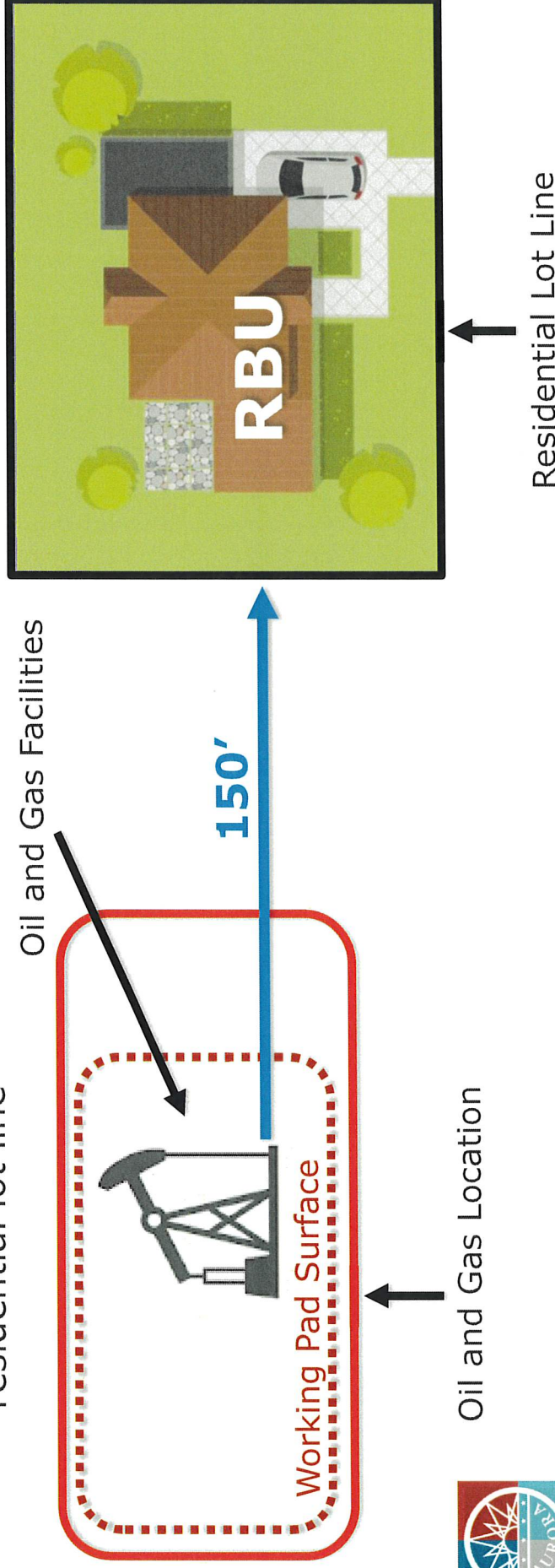
1000' SETBACK O&G IMPACT  
x ±294 IMPACTED LOTS/UNITS





## Reverse Setbacks (applies to Surface Developer)

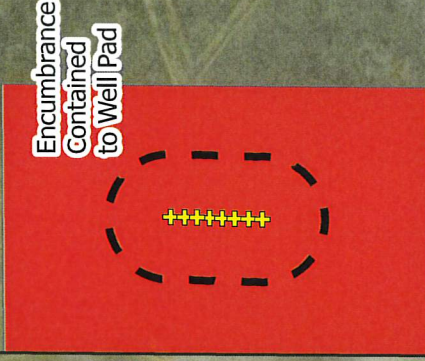
- None at the state level
- 150' in Aurora City Code (re-instated April 25, 2022)
  - Measured from the Oil and Gas Facility (i.e. equipment) to the edge of the residential lot line







**EXHIBIT D -  
City of Aurora Typical  
Well Pad Encumbrance Illustration**



Proposed Wellhead  
150 Foot Setback  
Proposed Well Pad (8 Well - 15 Acre Pad)  
Property Boundary

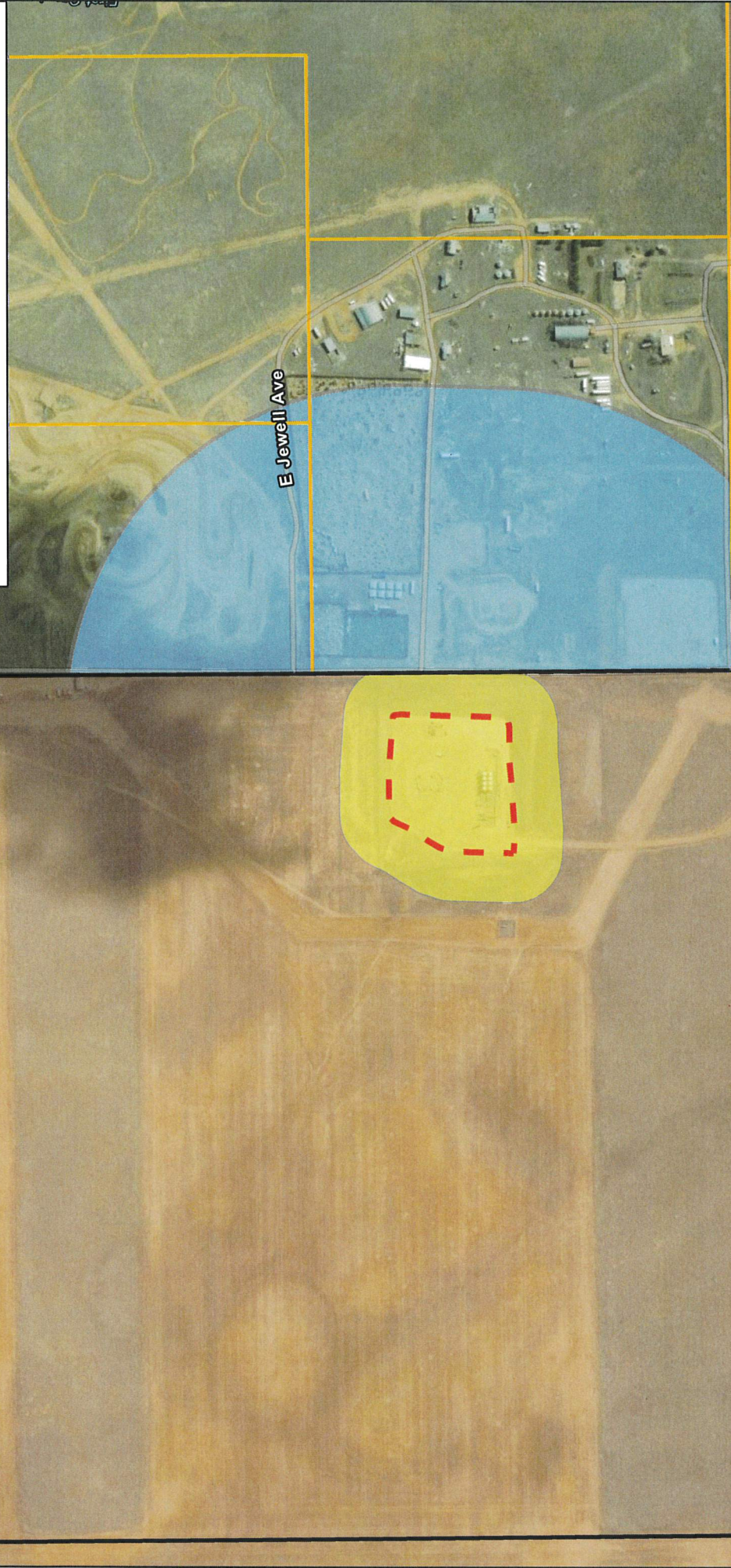
Maxar, Microsoft, Esri Community Maps Contributors,  
County of Arapahoe, © OpenStreetMap, Microsoft, Esri,  
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# EXHIBIT E - City of Aurora vs. Arapahoe County Well Pad Encumbrance Illustration







E Jewell Ave

E Jewell Ave



Maxar, Microsoft, Esri Community Maps Contributors, C  
County of Arapahoe, © OpenStreetMap, Microsoft, Esri, T  
Inc, METI/NASA, USGS,

-  Well Pad Boundary
-  City of Aurora - 150 Foot Setback
-  City of Aurora Boundary
-  Arapahoe County - 1,000 Foot Setback





September 6, 2024

Mr. Jason Reynolds, Planning Program Manager  
Ms. Ava Pecherowski, Development Review Planning Manager  
Arapahoe County Public Works and Development  
6924 S. Lima Plaza.  
Centennial, CO 80112

**Re: Arapahoe County Oil & Gas  
Regulations Update**

Dear Jason and Ava,

On behalf of Prosper Farms Investments, LLC, Vogel & Associates has reviewed the DRAFT oil & gas regulations that are currently pending review by Arapahoe County and community stakeholders. Based on review, the following are comments regarding the respective regulations.

The approved and vested Prosper Preliminary Development Plan was based on an oil & gas operations master plan that was created with Conoco Phillips and Arapahoe County. During the Preliminary Development Plan process, Arapahoe County planning staff (Sherman Feher) strongly encouraged that a master plan be prepared that identified potential locations for oil and gas production. As outlined in the approved Preliminary Development Plan, it was encouraged that production areas be located in areas that did not conflict with residential uses.

Planning areas, open space, roads, and oil & gas operation areas were based on a set of standards including setback requirements that were agreed upon with Conoco Phillips during the Preliminary Development Plan process. The agreed upon and documented setback requirement with Conoco Phillips includes locating residential structures 350 feet from the proposed well head. The Surface Use agreements that have been executed with Conoco Phillips and Crestone Peak address other aesthetic and life safety considerations. These standards have continued to be administered with Civitas Resources who has since purchased the Conoco Phillips and Crestone assets.



As noted above, the vested Preliminary Development Plan (PDP) including land uses, densities, etc. were based on the above considerations and agreements. The proposed reversed setback of 2,000 feet conflicts with the Prosper PDP. This proposed setback will significantly impact the approved planning areas and development potential. Platting within the 2,000 foot setback but not be able to process a building permit is not an acceptable standards. Prosper is requesting that the 350' setback that has been agreed upon with Conoco Phillips and Civitas Resources be maintained.

It is Prosper's intent to maintain the rights associated with the vested Preliminary Development Plan including the ability to develop the respective planning areas, land uses, and densities outlined in the plan. Prosper will not be supportive of any standards that will compromise the vested rights associated with the Preliminary Development Plan.

Prosper will continue to coordinate with the operators and pipeline companies to ensure the terms outlined in the respective agreements and easements are maintained. This will include addressing visual and life safety considerations.

Please review and call with any questions or comments.

Sincerely,

Vogel & Associates, LLC

Jeffrey Vogel, AICP

Principal

Cc: Thomas J. Ragonetti, Otten, Johnson, Robinson, Neff and Ragonetti



## CLEAN WATER, CLEAN AIR, CLEAN COMMUNITIES

Arapahoe County  
5334 S. Prince Street  
Littleton, CO 80166

September 3, 2024

Dear Arapahoe County Commissioners and Staff,

Save The Aurora Reservoir (STAR) continues to be very concerned about the plan for drilling in the Lowry Ranch area and would appreciate the opportunity to convey our top priorities for the Phase 2b rule making process. It appears that much of the work that STAR's lawyer submitted on our behalf, prior to the delay in taking up this process, has been discarded or replaced with more-lax language preferred by oil and gas operators whose mandate is to generate shareholder profits. This is upsetting to the STAR team and concerned citizens who are directly impacted by these rules, and has caused many of us to question this process and the commitment to which the Arapahoe County Commission is invested in protecting their livelihood and well being. Regardless, we submit our work with the expectation that it will be fully considered.

The portion of the proposed Phase 2b rules that STAR takes greatest issue with is the option for "administrative amendment.". This amendment would effectively allow the Board to approve an application despite omissions, deficiencies, or violations that should preclude it from approval. An application is either compliant or it is not. Introducing this option creates the opportunity, or at least the appearance of opportunity, for operators to influence County personnel to overlook deficiencies rather than denying applications that violate County rules. Waivers, as already allowed for in these rules, afford the operator appropriate and ample means of accounting for extraordinary situations or operational requirements. Another rule that should be instituted is that all OGD's must receive a full BoCC hearing and should NOT be administratively approved as operators prefer. There is enough concern and attention being paid to these projects that the public deserves to hear each one.



Next, STAR strongly urges the County to set an operational compliance threshold. Given the issues experienced in other communities that have allowed fracking near residential and wild areas, it seems reasonable to set a threshold of, for instance, 5 complaints in a 24 hour period. After that number, the operator would be required to cease operations until the complaints and potential violations have been addressed to the County's satisfaction. Operations should also immediately cease if emergency services are needing to be involved in any capacity. These rules could prevent a situation like one in Broomfield, where local residents made at least 4 complaints over two days regarding flames and a column of black smoke emanating from a pad (Facility ID/API 05-014-20761). Despite this, operations continued and it was only after the County site inspector arrived the following day that it was discovered a fire had indeed occurred that required the local fire department's intervention. If there were 1 mile setbacks from all human areas this might reduce the number of complaints. Setting a 1 mile setback distance will help to insure the safety and welfare of all potentially impacted peoples and given that the latest research suggests 5 miles at the closest safe distance, 1 mile seems quite reasonable.

During the ECMC's recent hearing on the Lowry Ranch CAP, the commissioners stated that the operator must include plans for electrified drilling and production in every subsequent application for oil and gas development plans within the CAP. STAR believes the County's 2B rules should account for state-mandated conditions and rules such as this by providing a clear outline on when within a County well pad application process these conditions should come into play. For example: during what phase of planning or implementation must the required infrastructure, studies, surveys or other actions be completed? Specific to the electrification requirement set by the ECMC on the Lowry Ranch CAP, we believe it is in the County's best interest to require that the operator has secured plans, a commitment, and timeline of running power to the sites prior to submitting their application, to ensure this condition can be met.

Finally, STAR believes the county should take steps to ensure that this operational electrification standard should apply beyond the Lowry Ranch CAP to any other oil and gas projects in the county as its reasoning and motives as presented by the County during the Lowry Ranch CAP application should/must extend to all of Arapahoe County. Electrification radically reduces both noise and emissions during drilling and production operations. We believe that requiring electrification will result in a reduction in noise complaints during the most disruptive portions of the operation.

We hope that you will consider these revisions to the recently proposed 2B rules on behalf of STAR, local residents, and the millions of greater-Aurora residents that are impacted by these operations. Together, we can ensure needed-energy production without risking our environment, our health, and our future.

The Save The Aurora Reservoir team

 [savetheaurorareservoir.org](http://savetheaurorareservoir.org)

 [@savetheaurorareservoir](https://www.instagram.com/savetheaurorareservoir)

 [info@savetheaurorareservoir.org](mailto:info@savetheaurorareservoir.org)

 [facebook.com/groups/510215314348563/](https://www.facebook.com/groups/510215314348563/)

LEAGUE OF WOMEN VOTERS OF ARAPAHOE AND DOUGLAS COUNTIES  
COMMENTS ON ARAPAHOE COUNTY PROPOSED PHASE 2B OIL AND GAS  
REGULATIONS

The League of Women Voters of Arapahoe and Douglas County (LWVADC) is the local branch of the League of Women Voters Colorado (LWVCO) for Arapahoe and Douglas counties. The League is a nonpartisan grassroots organization working to protect and expand voting rights and ensure that everyone is represented in our democracy. LWVCO was organized in 1928 and since that time has had an impact in many areas of Colorado government. We empower voters and defend democracy through advocacy, education, and litigation at the local, state and national levels. LWVADC appreciates the opportunity to comment on Arapahoe County's proposed amendments to its oil and gas regulations.

LWVCO adopted an Oil and Gas Development Position Statement Amendment on March 21, 2024. These comments are submitted consistent with the positions adopted in that statement.

**1. Financial Assurance and Required Insurance**

LWVCO supports the development and enforcement of laws, rules and regulations requiring oil and gas industry operators to provide adequate financial assurance to ensure the industry's ability to perform all its obligations to protect taxpayers, public health and the environment. This includes industry funded programs for decommissioning, reclamation and plugging and remediation of abandoned wells.

LWVCO supports the requirement of financial assurance of at least \$95,000 per well for plugging and remediating old wells. However, LWVCO's position is that the amount for financial assurance needs to be set to cover all potential plugging and remediation costs so the public/taxpayer does not have to bear those costs once the operator is long gone. An inflation adjustment by itself may or may not be adequate to cover the costs. The County needs to verify that this amount is adequate, and periodically review whether it needs to be adjusted.

LWVCO recognizes that adequate insurance must also be in place to cover any injuries, property damage, and environmental cleanup costs in the event of accidents. LWVCO is concerned that some of the limits proposed in section L.4. at page 34 are inadequate, especially limits of \$1 million on workers compensation and \$5 million for pollution

**2. Air Quality Monitoring.**

LWVCO supports the development and enforcement of laws, rules and regulations that protect air quality, including monitoring, reporting and regulatory oversight of emissions in all phases of oil and gas development, including pre-production, operation and closure. This includes the use of best available technologies to better characterize and reduce emissions and ozone formation, including ozone precursors, greenhouse gases, co-pollutants, and other toxic and carcinogenic air emissions. LWVCO supports air quality modeling to understand impacts of



new and existing emissions sources, to predict ambient air quality and support control strategies that decrease emissions.

LWVCO is concerned that the air quality monitoring and emission control may not be adequately addressed by the proposed regulations. Many of the provisions such as engine idling and minimizing truck traffic are not well defined (i.e., there should be a requirement for no idling more than 1 minute, only necessary truck traffic with trucks full to the maximum extent practicable to minimize emissions). Emission of 2 tons per tank of VOC's appears to be excessive and would contribute significantly to air pollution, airborne carcinogens, and ozone production. Flaring should not be allowed in general unless there are emergency circumstances, and if flaring occurs there should be a requirement that the operator offset any greenhouse gas emissions.

Air quality monitoring should also apply to ALL ozone precursors, including but not limited to VOCs and NOx and operations that produce these precursors should stop during daylight hours in the event that high levels of ozone are predicted (so-called "ozone action days").

The use of diesel and gasoline powered generators at well sites contributes to air pollution and ozone production, as well as noise pollution. Therefore, grid electric power should be required. Section 5-3.6(F)(11)(a) should be amended to add the following provision requiring grid electrification: "All facilities shall be equipped with electric-powered engines for motors, compressors, drilling and production equipment, and pumping systems, and the Operator is responsible for ensuring adequate power supply from the electrical grid for the electric equipment required in this section."

LWVCO also supports transparent, user-friendly websites affording public access to real-time or near real-time air quality information. Operators should be required to post all air monitoring data on a public website in real-time (or near real-time) to verify compliance.

### **3. Inspections and Enforcement**

LWVCO supports adequate government enforcement and resolution of issues to ensure that operations are safe, all laws, rules and regulations are implemented and environmental incidents are properly reported and remediated. LWVCO recommends amending provision 5-3.6(G)(7) to require all operations to cease if there are numerous related complaints against an operator. If there are a specified number of complaints in a specified period, operations must shut down and the county must initiate an immediate investigation so that violations can be addressed before they cause major damage to public health, the environment, and wildlife.

Similarly, there needs to be immediate action taken in the event of an emergency. Provision 5-3.6(F)(3)(n)(i) should be amended to provide in the case of an emergency, the well pad must be immediately shut down until the required report is made and the operator has been given approval by the county to resume operations. If emergency services are required, all

operations must cease until the required report is made and approval to resume operations is given by the County Local Government Designee.

#### **4. Setbacks and Reverse Setbacks**

LWVCO supports laws and regulations to promote a healthy environment in which to live, learn, work and play. Environmental and environmental justice laws, rules and regulations must protect against actions that are harmful to the environment, public health, welfare, safety. In accordance with this policy, LWVCO recommends increased setbacks for vulnerable populations including 5,280 feet from a school, school facility, licensed child care center, hospital, outpatient clinic, nursing home, and life care institution, as measured from the parcel boundary of the Oil and Gas Facility to the property line of the building.

LWVCO also supports the proposed increased 2,000 foot reverse setbacks for new development from existing oil and gas wells. However, this reverse setback apparently applies only to new development within unincorporated Arapahoe County – for example, new development within the boundaries of cities and towns would not be subject to this reverse setback from oil wells in unincorporated Arapahoe County. The county maps on display at the September 3 open house showed proposed subdivisions already before City of Aurora planning that are substantially within the 2000 foot reverse setback for some wells, such as the proposed Beaver well. The County has jurisdiction over the permitting of wells in unincorporated Arapahoe County. It should protect its citizens in proposed subdivisions by prohibiting the construction of oil and gas wells in unincorporated Arapahoe County that are within 2000 feet, 3000 feet, or 5280 feet (as applicable) of development that has been proposed, even if that development is proposed within municipal boundaries.

#### **5. Water Quality Protection and Monitoring**

LWVCO supports development and enforcement of laws, rules and regulations that protect water resources. This includes monitoring, reporting and regulatory oversight of water quantity used and water quality to protect water resources.

LWVCO supports prohibiting injection wells to dispose of toxic oil-polluted water which also may contain other hazardous chemicals or radioactive contaminants. This prohibition should extend beyond the county limits, so that the operator does not merely inject the pollutants into the ground outside the county limits. The county should require the operator to provide a plan for disposal that is demonstrated to be safe for all, not just merely move the problem outside the county limits.

Water monitoring must include all potential contaminants, including methane, hydrocarbons, and chemicals in fracking fluid. This is necessary to insure that there is not migration of oil, methane, or fracking fluids from faulty wells.

Secondary containment is important to control water and soil contamination. Section 5-3.6(F)(5)(b) should be amended to require secondary containment on all components of wellheads, flowlines, crude oil transfer lines, valves, fitting and instrumentation, and process equipment.

## **6. Public Participation in Hearings and Limitation of Administrative Authorizations**

LWVCO supports laws, rules and regulations that enhance public participation in the permitting and monitoring and closure of oil and gas development and operations in the state. LWVCO supports public hearings held in the impacted community and/or conducted virtually with community stakeholders.

LWVCO is concerned that several of the draft provisions would allow for administrative amendments and decisions to be made without public hearings or a final decision from the elected Board of County Commissioners. Therefore, we recommend that section 5-3.6(O), which provides for the ability to amend administratively, be deleted.

LWVCO also supports adding a provision requiring a public hearing and final decision by the Board of County Commissioners on any oil and gas application if requested by a resident or homeowner whose home lies either within 3000 feet horizontally, or above, any proposed well or subsurface drilling operation.

The League of Women Voters of Arapahoe and Douglas County thank you for the opportunity to comment on these proposed regulations.



### General

This rulemaking is completely unnecessary as the State of Colorado already has, and is currently promulgating, rules and regulations that are more than protective of the public interest.

This needs to be said again, and with emphasis, THE STATE OF COLORADO, THROUGH THE ECMC, ALREADY STRINGENTLY REGULATES THE MATTERS THAT ARE AT ISSUE IN THESE PROPOSED AMENDMENTS.

This exercise should be ended immediately.

### Air Quality and Monitoring

There is a State agency, the APCD of the CDPHE, that is charged with protecting air quality. Perhaps an MOU or IGA with them is the proper way to address your concerns.

### Injection Wells

Prohibiting injection wells is short sighted. There are many benefits of having water disposal closer to, rather than farther from, producing wells. Renegade suggests the County re-evaluate their position on this matter.

### Reverse Setbacks

This is a taking of private property, plain and simple. To think that you are “protecting” the public and/or “saving” your constituents from harm is laughable. Throughout the County, the State, and the Country, homes, apartments, retail, and commercial developments have been built on and near oil and gas wells and sites with virtually no adverse impacts.

### Financial Assurances

This is duplicative of State regulations. The bonding you would require would already be submitted to the State of Colorado for the exact same purpose as the proposed regulations describe. This would be double bonding, double jeopardy, and wholly unreasonable for the County to require.

### Inspection Program

Creating an inspection program from scratch for the limited number of wells that do and will exist in the County is a huge waste of time, effort and money. An MOU or IGA with the State of Colorado ECMC, or for that matter, the City of Aurora, would be a much cleaner, simpler and more efficient way to achieve your goal.

### Comments from Other Industry Stakeholders

While we have not reviewed the specific comments, Renegade generally supports the comments of other industry stakeholders.

September 15, 2024

Arapahoe County Commissioners  
via: Ava Pecherzewski

RE: Arapahoe County Phase 2B Oil and Gas Regulation Amendments

I, Edward Ingve, make the following comments as owner/operator of Renegade Oil & Gas Company and Arapahoe County resident for the above referenced rulemaking. I have operated my business, headquartered in Arapahoe County, for 37+ years with oil and gas operations in Arapahoe County going back at least 36 years. I have lived in Arapahoe County since 1984.

I have found this latest round of oil and gas rulemaking by Arapahoe County as completely superfluous and redundant. I have yet to hear the BOCC make a clear case why the ECMC or CDPHE rules are deficient. The proposed rules are being advanced as a knee jerk reaction to a loud minority who distain oil and gas development and have aligned with a NIMBY contingent living primarily in the Southshore neighborhood. This is the worst way of adopting public policy.

These rules are being advanced at breakneck speed with no real stakeholder engagement after a long delay from the last round of oil and gas regulation adoption. No one on staff currently has the technical competency in the oil and gas industry to understand the ramifications of what is being proposed. The previous County Energy Specialist, Chris Laramie, is an oil and gas landman, with no background in operations. He resigned his position last month. By staffs own admission, language for these rules are being lifted from other counties rulemaking and from an environmental group's suggestion.

Previous to the current elected BOCC, rulemaking in Arapahoe County was done more deliberately with significant stakeholder input.

My specific objections to what is being proposed are outlined by general topic below:

**Financial Assurances** – This section is very short on details and is completely redundant with current ECMC rules. Why does Arapahoe County feel the need to double up the State requirements? How is the county proposing to administer this program? Is the county planning on trying to implement bonding on existing legacy wells and where does it find the legal grounds to do that? A surety bond is a form of contract. How can the county force a contract on an existing asset put in service 50 years ago. The insurance requirements are completely unacceptable (\$25MM umbrella/excess liability for starters). Where did this language come from?

**Air Quality Requirements** – There is no one at Arapahoe County with the expertise to know what all the redline changes mean operationally. This needs to be left up to the air quality experts at air pollution control division at CDPHE (which I'm not a big fan of). This has no business being in any Arapahoe County regulations. I challenge anyone on the staff to identify why the existing



State regulations are deficient. Once again I would like to know who drafted this language. Is this going to be imposed on older legacy wells? These changes are completely duplicative with State regulations and need to be dropped from this draft.

Commercial Injection Wells – Banning commercial injection wells is very short sighted. The public has much more to worry about due to increased truck traffic hauling water out of the county than any dangers from a deep commercial injection well. Once again the regulations in place are absolutely sufficient to abate any minuscule risk posed by any wells. This issue needs to be rationally evaluated and not emotionally driven by unfounded “facts”. The ECCV water district used by a significant amount of the Arapahoe County residents uses a deep injection well associated with their reverse osmosis water treatment facility in Adams County. What would be the BOCC position if Adams County decided to shut down that well?

Reverse Setbacks – While I don’t have an objection to the reverse setbacks (except that they are unnecessary), the lack of transparency in this process is on display. After talking with real estate developers, I know they are unaware of these proposals let alone the implications at stake. The one public meeting initially noticed was cancelled and rescheduled very shortly thereafter leading to further confusion. I know of developers who were not happy about the short notice of the scheduling and rescheduling.

Inspection Program – There needs to be much more discussion on what the objective of this proposed program is (drive the industry out of the county?). Given the limited number of wells in Arapahoe County and the county’s budget problems it seems inappropriate that an increase in FTE is being advanced. There are significant limitations on how much and what can be imposed on industry for the cost of well inspections per Senate Bill 19-181. I am very familiar with the Adams County program and can emphatically state that their program is nothing but an exercise in feel-goodism. The inspectors deployed are not qualified to discern all the permits obtained for oil and gas facilities nor do they have the authority to enforce State and Federal permitting. This needs stakeholder and industry input.

In conclusion I am offended about the regulatory process adapted by the county in advancing this Phase 2B Oil and Gas Regulation Amendments. The one public “meeting” scheduled and rescheduled also demonstrates the county’s lack of interest in acquiring meaningful feedback. As a long term operator within the county the lack of consultation and engagement is disappointing. I certainly thought the BOCC would be more interested in developing good policy as opposed to reacting to emotional rhetoric. Good public servants seek facts and input prior to adopting quality regulation and are not persuaded by citizenry emotion.

Edward Ingve  
Renegade Oil and Gas Company LLC  
303-829-2354  
[ed@renegadeoilandgas.com](mailto:ed@renegadeoilandgas.com)

To: Arapahoe County Commissioners and Staff

From: Katharine M and Sue A Ebersberger  
Wheatlands Metropolitan District  
Aurora, CO 80016

Subject: Rule 2(b) Amendments

Date: September 6, 2024

We are homeowners in the Wheatlands Metropolitan District and are making the following comments on our own behalf.

We purchased our home on November 22, 2023, and were totally unaware of the Lowry Ranch CAP until May 2024. Our home will be fracked from the State Sunlight-Long wellpad.

Our biggest concern about the proposed amendments is the lack of notice to residents whose homes will be fracked. The proposed rules limit notice to residents within 1.5 miles of a wellpad. Yet the Lowry Ranch wells are expected to extend 3.5 miles from the wellpad. Technological innovations are expected to increase the length of fracking wells even further.

We can tell you from personal experience that discovering that an oil and gas well will run under your house and that you were not given notice and a meaningful opportunity to be heard feels like a gross violation of privacy.

We do not oppose all oil and gas facilities in rural areas. However, when wellpads are located within 5 miles of densely populated areas, additional safeguards should be required. This is because the adverse health, welfare, and safety consequences of fracking will be inflicted on large numbers of people. The adverse health impacts are even more troubling for vulnerable citizens such as children and the elderly.

Further, extensively developed communities will be at risk for severe property damage from major wildfires and the owners of those properties will suffer financial losses from decreased property values. In densely populated areas, the adverse health and financial consequences of the fracking to affected residents outweigh the financial benefits to Arapahoe County as a whole.

There must be a balance of oil and gas development and residential development in the county. It is understandable that densely populated areas object to oil and gas facilities in their neighborhoods.

The approval of oil and gas applications should not be handled administratively. As oil and gas facilities are increasingly encroaching on densely populated areas, the public must be involved.

Under the proposed amendments, homeowners are only given notice if they live within a mile and a half of a wellpad. Public comments are permitted only on the first draft of the application. The applicant then receives comments from the county and revises its application. However, no public input is permitted before the approval of a revised application or for the approval of an administrative amendment. Residents should have **standing and be able to require a public hearing before the county commissioners**, especially if the wells extend into their neighborhoods!

Further, these amendments must apply to **ALL applications, both new and pending, AND existing facilities**. Oil and gas wells are in production for decades. The adverse impacts to public health, safety, and welfare, the environment, and wildlife continue throughout the life of the well. In order for any new safeguards to fully protect the public, the environment, and wildlife, the new safeguards must be applied uniformly to all facilities in the county. We cannot allow any facility to violate new regulations and harm the public, the environment, and wildlife for decades merely because it filed its application before the regulation was adopted.

Transparency is critical. Right now, there has not been transparency in the drafting and adoption of these amendments. No schedule has been posted. It is not clear who is drafting the amendments, what instructions they were given, or who they have consulted. However, there was mention made at the open house of an intent to complete the process before the election.

There was a great deal of interest at the Open House in these revisions. The public perceives that oil and gas companies have been consulted on the amendments and that our input will not be taken seriously. Rather than giving the public post-it notes to comment on the amendments, we believe that it would be useful for the persons responsible for drafting the revisions to sit down with representatives of the interested citizen groups and discuss their concerns.

We applaud Arapahoe County in having strict oil and gas regulations. But more safeguards are needed. Right now, there is no oil and gas specialist working for the county with expertise to assist us in the process. We need to carefully consider how the county, together, we can best to protect the public, the environment, wildlife, and economic development.

These amendments need further study, open conversation between the county, the public, and the oil and gas companies, and much more deliberation before they are officially adopted. The process should not be rushed due to political considerations.



Having a thoughtful, unhurried, and inclusive process is critical to the continued success of our county for all its citizens.

Thank you for considering our comments.

**ARAPAHOE COUNTY COMMISSION PROPOSED DRILLING REGULATION CHANGES  
COMMENTS  
September 6, 2024**

**1. Add a new 5-3.6(F)(2)(a)(ix) but increase to one mile setbacks from public areas**

**Arapahoe County's proposal:**

**2. Setbacks**

- (a). All Oil and Gas Facilities shall be located at least:=[
- i. 3,000 feet from any occupied structure as measured from the pad boundary.
  - ii. 3,000 feet from the nearest boundary of a platted lot smaller than 15 acres in area as measured from the pad boundary.
  - iii. 200 feet from any adjacent property's boundary line as measured from the pad boundary.
  - iv. 100 feet from public rights-of-ways as measured from the pad boundary.
  - v. 3,000 feet from a Designated Outside Activity Area as measured from the pad boundary.
  - vi. 3,000 feet from the nearest property line of an operating or closed landfill as measured from the pad boundary.
  - vii. Outside of a 100-year floodplain and at least 1,000 feet from the edge of any perennial surface water body that is not a public water reservoir, the ordinary highwater mark of any perennial or intermittent stream, or the edge of any riparian area, whichever is the greater distance, as measured from the pad boundary. Nothing in this setback shall be interpreted as modifying any specific requirement for stream, surface water or riparian areas established with CPW in accordance with ECMC Rules 309 and 1202.
  - viii. All access roads shall be at least 250 feet from a residential or non-residential property line, excluding light or heavy industrially zoned properties.

**1. I URGE ARAPAHOE COUNTY REQUIRE THIS GREATER SETBACK:**

**5-3.6(F)(2)(a)(ix)**

**5,280 feet from a school, school facility, licensed child care center, hospital, outpatient clinic, nursing home, and life care institution, as measured from the parcel boundary of the Oil and Gas Facility to the property line of the building .**

**I urge Arapahoe County to require a one mile setback because evidence from peer-reviewed studies shows that setbacks less than 1 mile from residences is a high risk for the community. STAR strongly recommends the County at least include language that setbacks from vulnerable populations (schools, daycare centers, hospitals, nursing homes, assisted living facilities and outpatient clinics) should be at a distance established to have no statistically significant negative health effects on those vulnerable populations.**

**2. Amend 5-3.6(F)(5)(b) and require secondary containment on all components**

**Arapahoe County's proposal:**

b. Secondary containment is required around any other aboveground storage tanks or containers of any liquid substance other than fresh water on well pads, and specifically including but not limited to solvents, methanol, fuels, coolants, antifreezes, or lubricants or lubricating oil, and shall have sufficient capacity and be effective to contain at least 1.5 times the volume of the largest tank.

**2. I URGE ARAPAHOE COUNTY TO ADD THIS ADDITIONAL SECONDARY CONTAINMENT REQUIREMENT:**

**Secondary containment is required for wellheads, flowlines, crude oil transfer lines, valves, fitting and instrumentation, and process equipment.**

**I urge Arapahoe County mandate that these components be subject to secondary containment requirements in addition to tanks. Any and all of these components can fail, be damaged accidentally or vandalized and result in a release that if large enough could migrate to surface water or groundwater.**

**3. Delete "final" from 5-3.6(E)(1)(d) so requires only a decision by the Arapahoe County Commission**

**Arapahoe County's proposal:**

5-3.6(E)(1)(d) Upon completion of the referral process and acceptance of the final copy of the complete application and exhibits by the PWD, the application materials will be forwarded for final review to the PWD Director.

**3. I URGE ARAPAHOE COUNTY TO DELETE "FINAL"**

**, the application materials will be forwarded for review to the PWD Director.**

**The Public Works and Development Director should not have final authority over oil and gas applications because these projects have major public health and safety consequences.**

**4. Add new 5-3.6(E)(1)(e) Require a public hearing if any resident or homeowners owners with homes above proposed wells request.**

**4. I URGE ARAPAHOE COUNTY TO ADD THIS REQUIREMENT FOR PUBLIC HEARINGS**

**5-3.6(E)(1)(e)**

**A final decision on each oil and gas application must be made by the Arapahoe County Board of County Commissioners. Upon the request of any resident or homeowner**



**whose home lies above the projected path of any proposed well, a public hearing is required.**

**The mandate of Colorado Senate Bill 181, passed in 2019, “prioritizes the protection of public safety, health, welfare, and the environment in the regulation of the oil and gas industry by modifying the oil and gas statutes and by clarifying, reinforcing, or establishing various aspects of local governments’ regulatory authority over the surface impacts of oil and gas development. “**

**The Arapahoe County Commission should make decisions on all oil and gas applications based on this standard. A public hearing should be required if requested by any resident or homeowner whose home lies above any proposed well.**

**5. Delete 5-3.6(O) –delete ability to amend administratively**

**Arapahoe County’s proposal:**

If the Applicant or the Operator proposes changes from the plans approved through the Administrative Use by Special Review, including but not limited to any changes in the source or location of water to be used by the Oil and Gas Facility, the type and size of equipment on the facility or visual mitigation measures, the Applicant is required to submit an amendment to the approved Administrative Use by Special Review plans showing the proposed changes. The PWD Director may approve, conditionally approve, or deny the proposed amendment in accordance with the provisions of this Section 5-3.6. The proposed amendment will be reviewed by PWD staff and, as needed for the review of the application, PWD Staff may require additional information. The amended application will need to meet all requirements of this Section and be approved in writing. If the BOCC approved the original application on appeal, as a USR, or by reason of its otherwise having been elevated to the BOCC for decision under this Section 5-3.6, the proposed amendment shall be referred to the BOCC for consideration and decision following public hearing as provided in Section 5-3.6.G.4 above. The PWD Director may exercise his or her discretion to elevate any proposed amendment to the BOCC for consideration and decision as provided in Section 5-3.6.G.4 above. Upon recommendation of PWD Staff, the PWD Director may waive the need for amendment of the Administrative Use by Special Review or other BOCC approved Oil and Gas Facility permit provided that the proposed change is found to be minor, with no material effect to or departure from the original approval, and without the potential for significant surface impacts to public health, safety, welfare, or the environment at the Facility site.

**5. I URGE ARAPAHOE COUNTY TO DELETE THIS SECTION ENTIRELY TO PREVENT ARAPAHOE COUNTY FROM BEING ABLE TO MAKE AMENDMENTS TO THE REGULATIONS ADMINISTRATIVELY.**

**The provision for Administrative Amendments should be deleted because, under this provision, the application can be amended without the opportunity for public oversight or public review. All O&G Applications must be concrete and specific so that both the county and the public know what is being proposed, whether it complies with the law and regulations and what effects it may have on public health, safety, and welfare, the environment and wildlife. Any application must comply with all requirements when filed and the public must be able to weigh in the project. This cannot occur when the**

proposal can be modified after public input has been received.

**6. Add new 5-3.6(F)(11)(a) -require electrification**

**Arapahoe County's proposal:**

Protection of Air Quality: In order to avoid degradation to air quality, Operator shall avoid, minimize, or mitigate all potentially harmful emissions and odors, and avoid, minimize, or mitigate dust associated with onsite activities and traffic on access roads.

**6. I URGE ARAPAHOE COUNTY TO ADD:**

**All facilities shall be equipped with electric-powered engines for motors, compressors, drilling and production equipment, and pumping systems, and the Operator is responsible for ensuring adequate power supply from the electrical grid for the electric equipment required in this section.**

**I urge this addition because requiring full electrification from the grid will address several air quality concerns.**

**7. Amend 5-3.6(F)(3)(n)(i) Require shut down for incidents**

**Arapahoe County's proposal:**

All emergencies shall be reported to 911 immediately upon discovery, and as soon as reasonably possible to Office of Emergency Management and the County Local Government Designee (LGD).

**7. I URGE ARAPAHOE COUNTY TO INSERT THIS ADDITION IN THE MIDDLE OF THE PROPOSED CHANGE:**

**In the case of an emergency, the wellpad must be immediately shut down until the required report is made and the operator has been given approval by the county to resume operations. If emergency services are required, all operations must cease until the required report is made and approval to resume operations is given by the Local Government Designee.**

**AND THEN THE ARAPAHOE COUNTY TEXT CONTINUES:**

In the case of an emergency situation where a delay caused by reporting would endanger public health, safety, welfare, or the environment or wildlife, the initial notice may be given orally. Formal incident reports are required for, but not limited to, the following incidents: spills, releases, uncontrolled release of pressure, loss of well control, vandalism, terrorist activity, fires, explosions, detonations, lightning strikes, any accidental or natural event that damages equipment, accidents resulting in fatalities, significant injuries or chemical exposures, or any condition or occurrence that threatens or harms safety on any of the Operator's facilities, including pipelines. Formal written incident reports for all reportable incidents shall be submitted to the Office of Emergency Management, the fire district having jurisdiction at the

facility, and the County LGD within three (3) calendar days of the incident. When in doubt as to whether the incident is reportable, the Operator will contact the County LGD.

**The reason for this addition is that, after any emergency at a wellpad, it is important for Arapahoe County to investigate the cause of the problem and ensure that a resumption of operations is safe for county residents, the environment, and wildlife.**

**8. Amend 5-3.6(G)(7) Require all operations to cease if numerous related complaints**

**Arapahoe County's proposal:**

**Cease and Desist**

The Director has the authority to issue a Cease and Desist order, requiring the Operator to stop all affected Oil and Gas operations where either there is (1) an emergency condition necessitating the cessation of activities to prevent harm to public health, safety, welfare, wildlife, or the environment, or (2) three or more documented violations which threaten public health, safety, welfare, wildlife or the environment within a six month time frame

**8. I URGE ARAPAHOE COUNTY TO EDIT AND ADD THIS TEXT TO THE PROPOSED CHANGE:**

**Cease and Desist**

The Director has the authority to issue a Cease and Desist order, requiring the Operator to stop all affected Oil and Gas operations where either- there is (1) an emergency condition necessitating the cessation of activities to prevent harm to public health, safety, welfare, wildlife, or the environment, ~~or~~ (2) three or more documented violations which threaten public health, safety, welfare, wildlife or the environment within a six month time frame **or (3) 20 related complaints on the ECMC website over a 48-hour period. If a cease and desist order is issued, the Director must commence an investigation and operations cannot resume without the approval of the Director.**

**The reason for this is that, if there are a specified number of complaints in a specified period, operations should be shut down and Arapahoe County investigate. It is important to have an immediate investigation so that violations can be addressed before they cause major damage to public health, the environment, and wildlife.**

**9. I URGE ARAPAHOE COUNTY TO MITIGATE THE THREAT TO PUBLIC HEALTH AND SAFETY FROM RADIOACTIVE WASTE AND ADD SAFEGUARDS FOR THE TRANSFER OF PRODUCED WATER AND POSSIBLE SPILLS PROTECT THE PUBLIC'S HEALTH AND SAFETY AND THE ENVIRONMENT AND WILDLIFE.**

**According to the US EPA:**

**<https://www.epa.gov/radiation/tenorm-oil-and-gas-production-wastes>**

**TENORM: Oil and Gas Production Wastes**

In recent years, oil and gas producers have employed new methods that combine horizontal drilling with enhanced stimulation. These new methods, known as "fracking," have changed the profile of oil



and gas wastes - both in terms of radioactivity and volumes produced. The geologic formations that contain oil and gas deposits also contain naturally-occurring radionuclides, which are referred to as Naturally Occurring Radioactive Materials (NORM):

- [Uranium](#) and its decay products.
- [Thorium](#) and decay products.
- [Radium](#) and decay products.
- Potassium-40.
- Lead-210/Polonium-210/Bismuth-210.

Much of the petroleum and natural gas developed in the U.S. was created in the earth's crust at the site of ancient seas by the decay of sea life. As a result, shale, petroleum and gas deposits often occur in aquifers containing brine (salt water). Radionuclides, along with other minerals that are dissolved in the brine, separate and settle out, forming various wastes at the surface:

- Mineral scales inside pipes.
- Sludges/sediments.
- Contaminated equipment or components.
- Produced waters.

Because the extraction process concentrates the naturally occurring radionuclides and exposes them to the surface environment and human contact, these wastes are classified as [Technologically Enhanced Naturally Occurring Radioactive Material \(TENORM\)](#).

From Bill Kroesser, Ph.D., Aurora Resident who spent his entire career helping chemical manufacturers and coal mine operators conduct their operations while avoiding harm and nuisance to residents.

Enclosed are:

1. Compendium by Physicians for Social Responsibility detailing the **harms of fracking** as currently practiced, including references to **2,557 scientific articles** showing why fracking is not healthy in or nearby Aurora: <http://concernedhealthny.org/compendium/>
2. My two-page summary of the above
3. Three versions of an article detailing the **costs of reclaiming fracked land**, first a summary,
4. Full article on reclaiming costs
5. **American Chemical Society** scientific article detailing the costs and methods used.

Finally, a **plea** for a **moratorium** while we digest this wealth of information and look for other sources and observe former fracking sites to see if the damage is as bad as the experts are telling us.

I understand that Arapahoe has empty positions to fill for experts to assist with these decisions. Since it takes so long to hire competent people, the County might consider having **volunteers with expertise** assist in the decision-making process. Many of us have had careers where we lived through the development, implementation, and eventual banning of activities that impact the public, such as:

- Tetra-ethyl-lead in gasoline
- Tobacco products
- Teflon manufacture
- Chromium 6 (Erin Brockovich)
- Fluorocarbons (current health hazard in WV)
- Lead in paint, and heavy metals in the Great Lakes
- Polycarbonated biphenols (PCB's)
- X-ray machines in shoe stores; Tanning beds
- Widespread use of asbestos

Thank you for taking on this difficult decision.

**“Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking and Associated Gas and Oil Infrastructure (Ninth Edition),”** October 2023

Concerned Health Professionals of New York and Physicians for Social Responsibility

<http://concernedhealthny.org/compendium/>

**Summary of Findings** (page 9 of 104 page report and 533 pages of summaries of other reports)

As of 2022, hydraulic fracturing techniques had been used on an estimated one million wells across the United States to shatter rock layers and extract the oil or gas trapped inside. With hydraulically fractured shale wells now producing at least 79 percent of U.S. natural gas and 65 percent of U.S. crude oil, fracking, no longer “unconventional,” has become the standard method for oil and gas extraction. As fracking operations in the United States and abroad have increased in frequency, size, and intensity, a significant body of evidence has emerged to demonstrate that **these activities are harmful in ways that cannot be mitigated through regulation.** Threats include detrimental impacts on public health, climate stability, water and air quality, farming and livestock, property values, economic vitality, and quality of life.

Emerging science also shows that fracking is an environmental injustice, with injuries not borne equally by all. Throughout the United States, fracking harms **pregnant women, children, Indigenous people, communities of color, and low-income communities disproportionately.**

A growing and substantial body of research reveals fundamental problems with the entire life cycle of operations associated with fracking and its infrastructure. Independent, peer-reviewed analyses indicate that fracking is an unpredictable process with innate engineering problems that include uncontrolled fracturing, induced earthquakes, and well casing failures that worsen with age. Intractable problems also include radiation releases; abandoned wells that serve as pathways for contamination; and venting, flaring, and blowdowns that result in methane releases.

As documented in more than 110 studies, **toxic air pollution accompanies fracking.** More than 200 airborne chemical contaminants have been detected near drilling and fracking operations, and air monitoring has confirmed strikingly high levels of toxic air pollutants in communities near these sites. Of these chemicals, **61 are classified as hazardous air pollutants with known health risks, including the potent carcinogens benzene and formaldehyde.** Additional fracking-related air pollutants include diesel exhaust, fine particles, hydrogen sulfide gas, nitrogen oxides, chlorine, and other chemical precursors of ground-level ozone (smog), which can damage respiratory, cardiovascular, and nervous systems. In many cases, concentrations of fracking-related air pollutants in communities where people live and work exceed federal safety standards, even in some rural communities. **Research shows that air emissions from fracking and flaring can drift and pollute the air hundreds of miles downwind.** Indoor air pollution from gas stoves, which represent the terminus of the fracking pipeline, includes nitrogen oxides, carbon



monoxide, fine particulate matter, and benzene. About one in every eight cases of asthma in U.S. children is attributable to exposure to emissions from gas stoves.

Each day in the United States, more than two billion gallons of pressurized fracking fluids are pumped underground for the purpose of extracting oil and gas or, after the fracking is finished, to inject the extracted wastewater into any of more than 187,000 disposal wells across the country. As documented by more than 200 studies, these fracking-related activities have depleted or contaminated water resources, including drinking water sources. Studies from across the United States provide **irrefutable evidence that groundwater contamination has occurred as a result of fracking activities and is more likely to occur close to well pads.** Spills and intentional discharges of fracking fluids and fracking waste into surface water have profoundly altered the chemistry and ecology of streams throughout entire watersheds, increasing downstream levels of radioactive elements, heavy metals, endocrine disruptors, toxic disinfection byproducts, and acidity, and decreasing aquatic biodiversity. Demand for water to use in U.S. fracking operations has more than doubled since 2016. The water used for fracking that remains in the shale formation is permanently lost to the hydrological cycle. Studies also show that fracking can deplete streams and aquifers in ways that create water scarcity in drought-prone regions. Along with fracking itself, the injection of fracking waste is a proven cause of earthquakes. The disposal of fracking wastewater remains a problem with no solution.

With more than 17.6 million U.S. residents living within one mile of at least one active oil and gas well, the result is a public health crisis. As documented in more than 120 studies, public health harms now linked with drilling, fracking, and associated infrastructure are well-established. They include cancers, asthma, respiratory diseases, skin rashes, heart problems, and mental health problems. Multiple corroborating studies of pregnant women residing near fracking operations across the nation show impairments to infant health, including birth defects, preterm birth, and low birth weight. Emerging evidence shows harm to maternal health—including elevated risks for eclampsia during pregnancy—and shortened lifespans among older residents living in proximity to oil and gas wells.

Fracking is accelerating the climate crisis. North American fracking operations for both oil and gas are driving the current surge in global levels of methane, a greenhouse gas 86 times more potent at trapping heat than carbon dioxide over a twenty-year period and which has contributed approximately 40 percent of all global warming to date. Methane escapes into the atmosphere from all parts of the extraction, processing, and distribution system, at rates that, as demonstrated through multiple methodologies, sometimes exceed earlier estimates by a factor of two to six. Recent scientific findings indicate that slashing methane emissions is far more critical in halting global warming than previously understood. Liquefying natural gas via super-chilling to allow its overseas transport as LNG adds further to the prodigious greenhouse gas emissions of natural gas obtained via fracking, due in part to the immense energy and evaporative cooling required by the liquefaction process.

Carbon capture and storage, now being promoted as a tool to address climate change, is an unproven set of technologies that does not account for methane emissions, cannot obviate the climate damage created by fracking, worsens local air pollution, and, as currently practiced, mostly serves as a tool of enhanced oil recovery that allows depleted wells to produce more oil.

In sum, **the vast body of scientific studies now published on hydraulic fracturing in the peer-reviewed scientific literature confirms that the public health and climate risks from fracking are real and the range of environmental harms wide.** Our examination uncovered no evidence that fracking can be practiced in a manner that does not threaten human health directly or without imperiling climate stability upon which human health depends.

The rapidly expanding body of evidence compiled here is massive, troubling, and cries out for decisive action. Across a wide range of parameters, the data continue to reveal **a plethora of recurring problems that cannot be sufficiently averted through regulatory frameworks.** The risks and harms of fracking are inherent in its operation. The only method of mitigating its grave threats to public health and the climate is a complete and comprehensive ban on fracking. Indeed, a fracking phase-out is a requirement of any meaningful plan to prevent catastrophic climate change.

## COST OF RECLAIMING FRACKING SITES

### SUMMARY FROM RESOURCES FOR THE FUTURE STORY:

<https://www.rff.org/news/press-releases/new-study-reveals-key-factors-for-estimating-costs-to-plug-abandoned-oil-and-gas-wells/#:~:text=The%20median%20cost%20of%20plugging%20a%20well%20without%20restoring%20the,increases%20costs%20by%2020%20percent.>

### FULL STORY:

<https://www.rff.org/publications/journal-articles/decommissioning-orphaned-and-abandoned-oil-and-gas-wells-new-estimates-and-cost-drivers/>

### ORIGINAL ARTICLE:

Resources for the Future full story from the American Chemical Society:

<https://pubs.acs.org/doi/10.1021/acs.est.1c02234#>

“We do not inherit the earth from our ancestors, we borrow it from our children.” Chief Seattle

## COMMENTS ON ARAPAHOE COUNTY PROPOSED PHASE 2B OIL AND GAS REGULATIONS

By: Brian Matise

1. The proposed increased 2,000 foot “reverse setbacks” of new development from existing oil and gas wells is protective of the health and safety of Arapahoe County citizens and is a good idea, but unfortunately it will be almost completely meaningless because it only applies to new development within unincorporated Arapahoe County. Virtually all developers annex their land into a developer-friendly municipality (usually Aurora). Even where residential developments have already been proposed and master plans submitted (such as the Butterfield Trails/ Trails at Overland Ranch development submitted to Aurora and located approximately 1100 feet from the proposed State Beaver oil well pad) the reverse setback will not apply because Aurora allows lesser reverse setbacks. Instead of proposing largely meaningless reverse setbacks that only apply to unincorporated land, the code should provide that oil and gas drilling permits will not be approved in unincorporated Arapahoe County if there is proposed future residential development within 2000 feet.
2. Air quality monitoring: several of the air quality and monitoring limits appear ambiguous and may be effectively meaningless. For example, the viii.b. limit on page 20 of “Hydrocarbon emissions control of at least 98% or better for crude oil, condensate, and produced water tanks with uncontrolled actual emissions of Volatile Organic Compounds (VOCs) greater than two tons per year (TPY) VOCs” appears to allow 2 tons of VOCs to be emitted annually PER TANK before controls apply. For large operations with multiple wells, well pads, and tanks, this could be an arbitrarily large amount.  
Air quality monitoring should also apply to ALL ozone precursors, including but not limited to VOCs and NOx, and operations that produce these precursors should stop between the hours of 7am-5pm on ozone action days where these precursors can contribute to additional ozone and “smog” through photochemical reactions. This is analogous to requirements that homeowners cease mowing with gas powered lawnmowers and limit commuting during these same hours where precursors are converted via sunlight to ozone and smog.
3. Flaring of gas is still allowed under these rules. As the EPA December 2023 draft rules state, flaring should be phased out completely for newer wells. Flaring should not be allowed, and if flaring ever occurs there should be remedial consequences such as the operator should be required to purchase carbon and methane offsets in



an amount double the amount of greenhouse gas emissions and should reimburse government entities and mineral rights owners for double the amount of lost taxes and royalties for the wasted gas.

4. Page 21 section viii.m. the “reduction measures” listed are vague and therefore meaningless (such as what does “minimizing vehicle idling” mean, “reducing truck traffic”, etc. There should be specific and measurable limits on these ozone-contributing activities. For example, vehicle idling more than 1 minute is prohibited and subject to fines or shutting down operations for habitual offenders.
5. There should be public real-time (or near real-time) posting on the internet of monitors and video imagery of the site to allow the public to verify compliance. This actually can save the county money for inspections and compliance workers if the public is able to monitor and report violations.
6. The insurance requirements are completely inadequate to protect against environmental catastrophes in the event of spills or accidents. \$1 million commercial general liability policy is more typical for a small business than a billion-dollar operation that has the potential for hundreds of millions of dollars of environmental damage. \$30 million to \$50 million liability policies (inclusive of all excess carrier umbrella limits) are more typical in the oil industry.
7. Fire and emergency protection is another concern that is not adequately addressed. Many of these wells are being constructed in rural areas outside of coverage by larger municipal fire departments. For example, the Lowry Range and Box Elder projects are largely in Bennett/Watkins which is a small volunteer fire department. Furthermore, in response to my recent CORA request, Bennett Watkins admitted that it has no emergency plan specific for oil and gas site fires and limited or no experience with certain chemicals including radioactive materials that are often found in high quantities in produced water. Although better equipped nearby municipal fire departments will likely be called to assist, this would increase response time and could result in large wildfires, for example, that spread quickly reminiscent of the Marshall fire. Colorado provides for the ability to create fire protection districts. This would be an ideal opportunity to create a special purpose Title 32 fire protection district specifically in the area of these wells with the costs to be paid for by the property taxes and fees generated specifically from the oil and gas properties (as most of the rest of the property is tax exempt state property). This would also provide added protection to nearby residents from the increasingly common wildfires that occur in this area. I would propose conditioning future approval of oil and gas development permits with either: 1) insuring that the oil and gas facilities and ancillary operations are within the boundaries of a municipal fire department with the resources and training to handle oil and gas fires or 2) a Title 32

fire protection district is organized to provide appropriate facilities, trained professional personnel, and response times.

8. Water monitoring – it is not clear whether methane is monitored. Many homeowners near oil wells in the Weld County area have alleged there may be methane in groundwater and scientists have reported methane migration from faulty wells. All chemicals in fracking fluid should also be included in water monitoring to insure there is no leakage/contamination.
9. The prohibition on injection wells is good. However, it needs to be broader so that the operator must disclose WHERE any produced water will be disposed/injected. The county may reject an application based on risks of disposal of waste produced in the county even if it is disposed of outside the county. It does not good to prohibit injection wells IN ARAPAHOE COUNTY if the operator will simply drive across the county line and inject it right next to the county as that will still contribute to possible earthquakes and underground pollution.
10. It is not clear what is the basis for the \$95,000 per well financial assurance for plugging/remediating old wells. The amount needs to be set to cover all potential plugging and remediation costs so the public/taxpayer does not have to bear those costs once the operator is long gone.

My name is Carol Baker and I have lived in Aurora since moving from Missouri in 2002 with my husband and daughters. By profession I was a pharmacist working in the retail setting. The patients I became acquainted with over the years were a cross section from our community. They expressed their concerns about their health individually and issues facing the world around us.

Since I have been retired, I have been paying more attention to local government and candidates for state and local offices. As many of us will find, that as we pay attention, then we learn more, then get more interested, then repeat the pattern of paying more attention. Now I am a precinct leader and quite involved with supporting voters to make informed choices.

During campaigns for elected offices and for ballot measures there are headlines getting our attention. It is a challenge to keep up with activities of our county government between elections when there is less news coverage.

In the last two years while working on the land use considerations process seems to keep going on after it seems to have already been resolved. At this phase of the process please consider carefully the info from both sides being presented.

I urge the Arapahoe County Commissions to reject any more increases in regulations intended to restrict development of oil and natural gas as sources of energy in Colorado.

Carol Baker,

Aurora

My name is Jacquelyn Buky. After my husband and I retired from the Air Force (25 years for my husband and 42 years for me), we wanted to live closer to our children and grandchildren in Colorado. In 2007 we moved and bought our forever house in Aurora. We love the weather, the views, and our community. We are on a fixed income and inflation has ravaged all aspects of this economy and our family. My daughter, grandson and his son can no longer afford to make a home for themselves. As a result, they all live with us. Although we love having them here with us, this is not the retirement we had envisioned.

One of the most significant causes of inflation is the increased cost of oil that has affected all aspects of our lives. We cannot afford the increased costs of oil either as a direct or indirect consequence should the progress of oil drilling decline or slow. Your goal to ensure that oil drilling is healthy and safe is laudable and I applaud your work. I'm very pleased and excited that you carefully evaluate the pros and cons of each new application project before granting approval to drill in Arapahoe county.

The demand for and cost of oil is again inching higher, especially with recent national cutbacks and new environmental constraints. Colorado's oil drilling policies, practices, and procedures are one of the safest and cleanest in the country and perhaps even the world. Moreover, Colorado contractors have and continue to meet all health and safety conditions that have been required, requested and even suggested. Indeed, Colorado oil companies have continued to research, develop and implement safer and cleaner procedures. Let's not buy expensive foreign, dirty oil when we have the capacity and capability to supply America's needs.

I realize your job is really challenging and you must be cautious and make hard decisions; but now is not the time to further increase fuel and all other oil-related product costs by limiting clean, reliable and safe domestic oil production. I urge you to utilize Colorado's policies and procedures and not require additional, often duplicative requirements. Nothing could be more American than if we increased Colorado gas/oil production and became energy independent while adding numerous, good paying jobs in our community. Thank you for considering my thoughts and concerns.



**From:** [James Teige](#)  
**To:** [Energy](#)  
**Cc:** [James Teige](#)  
**Subject:** O&G Amendment Input: Lowry Landfill Buffer  
**Date:** Thursday, September 5, 2024 2:46:42 PM  
**Attachments:** [Ltr to Arap County.docx](#)

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5 Sep 2024

Arapahoe County Public Works & Development,

Thank you for the opportunity to provide input to Arapahoe County Oil and Gas operations amendments. My input has to do with the safety of the Lowry Landfill Superfund Site. As you are no doubt aware contaminants have already migrated approximately 3 miles from the site and both Congressman Jason Crow and the EPA have called for additional protections/ assurances, in regards to Oil and Gas operations surrounding the site, for both site integrity and public safety (references 1 and 4 below).

My proposal is to add amendment along the lines of the following:

Prohibit drilling and fracking to include horizontal wells, at any depth, beneath institutional control and land use restriction areas for both the Lowry Landfill Superfund site AND surrounding buffer area, as defined in the Final Institutional Controls Plan Lowry Landfill Superfund Site Remedial Design document, dated September 19, 2002, and as amended February 28, 2005).

Rational and References:

Offsite institutional controls are (as stated in the Final Control Plan) additional measures of protection for the Landfill and prohibit all activities that would interfere or be incompatible with, or that in any way reduce or impair the effectiveness or protectiveness of, the sitewide remedy (reference 3).

Clearly EPA considers fracking such an activity.

In EPA Region 8's letter to Colorado ECMC, dated May 3, 2024, provided for public comment regarding the Lowry Landfill Superfund Site (reference 1), to include the following:

1. The EPA is concerned that fracking could release hazardous waste from the landfill due

to microfractures to the vertical barrier below, as well as potential surface and subsurface disturbance to the clay containment remedies.

2. That letter acknowledged CIVITAS agreement to not drill directly under the site, but EPA's concern is for oil and gas development near Lowry Landfill, not solely under it.
3. The EPA expects Colorado and oil and gas operators to determine a setback and states measures of a preventative and conservative nature must be taken to ensure protection of landfill remedies and containment.
4. They call on Colorado to establish a buffer zone around the site.

It was clear during Lowry Ranch CAP hearings, and in response to the EPA, that CIVITAS would consider depth alone to be the setback and would penetrate under existing Lowry Landfill institutional controls if not prohibited as part of the permitting process or restricted by Arapahoe County (reference 2).

Arapahoe County must act or CIVITAS will proceed in absence of the ECMC establishing a buffer of any kind. Failing to do so will allow CIVITAS to point to both the state and county as not considering the activity an interfering or incompatible activity.

Again, EPA is calling for a buffer. What Arapahoe County would be putting in place is consistent with limitation already given for the area around the Lowry Landfill. If the ECMC later decided additional setback is needed they can do so at the OGP phase of approval for individual well sites. During August Lowry Ranch CAP hearings and deliberations the ECMC also said as much.

Impact to total area still available for O&G operations in the Lowry Ranch CAP is minimal as this is adding approximately one-half mile immediately south of the Lowry Landfill and approximately one-half mile east of the Lowry Landfill. Well pads that would have shorter runs or slightly fewer vertical wells, per plotting shown at August's ECMC hearings, are State Blanca West and State Sneffels.

Thank you again for considering my input and including protective measures withing existing control areas of the Lowry Landfill Superfund Site, as amendments to our county oil and gas regulations.

Respectfully,

James Teige  
5026 S Haleyville St  
Aurora, CO. 80016

References:

1. EPA Letter to ECMC, May 3, 2024 <https://sempub.epa.gov/work/08/100015052.pdf>
2. CIVITAS Letter, undated, <https://sempub.epa.gov/work/08/100013838.pdf>
3. Final IC Plan <https://sempub.epa.gov/work/08/100008992.pdf>
4. Congressman Crow Letter, July 15, 2024 available at <https://crow.house.gov/>

James Teige, SMSgt, USAF (Ret)  
5026 S. Haleyville St  
Aurora, CO 80016

Jason Reynolds  
Planning Division Manager, Arapahoe County  
6924 S. Lima St, Centennial, CO. 80112

Dear Jason,

3 SEP 24

This evening, I attended your open house at the Arapahoe County Fairgrounds to provide input to proposed amendments to oil and gas regulations at the county level. Thank you for answering my questions and discussing the future of Lowry Ranch. What I am writing to you about though is the remarkable staff you had on hand. You Sir, had your **ROCK STARS** out tonight!

As a former Manager of Air Force Population Health and member of the Air Force Surgeon General's Customer Service Task Force, part of my duty was identifying examples of truly outstanding customer service, and then cultivating those across the Air Force Medical Service. Make no mistake about it, what was asked of your team did not make for an easy evening, as they were left to answer for the unwelcome decision of the Colorado Energy and Carbon Management Commission. Yet they did an outstanding job engaging with the community!

I made a point to speak with each of your team present. I asked questions and I learned. Most asked questions of me as well: my background and perspective, what my inputs to the regulations might be, but also what this felt like for someone who lives in the CAP area. Gathering inputs yes, but also getting some understanding of their neighbors out here on the edge of Aurora. It went further than that, most everyone shared their backgrounds as well; how it was they joined the Planning Department, their roles on the team, and how they support the citizens of Arapahoe County.

Without doubt we would have wanted to emulate this level of service and customer connection within the Air Force Medical Service. Please take the time to recognize each member of you team who attended, at your earliest convenience.

Very Respectfully,  
James S. Teige, SMSgt, USAF (Ret)

CC:

Mr. Bryan Wiemer, Director, Public Works and Development  
The Honorable Carrie Warren-Gulley, Commissioner District 1 and Board Chair, Arapahoe County  
The Honorable Jeff Baker, Commissioner District 3, Arapahoe County



My name is Jan Bramble, 7225 S Platte Canyon Dr Littleton CO 80128 I have been a resident of Arapahoe County my entire life. Ive raised 2 children enjoying all that our county provides including the top notch schools. Ive been a Real Estate agent for over 25 years.

I am writing to you today regarding your approval of a proposed project in Arapahoe county by Civitis Oil and Gas. I have attended various public meetings regarding this important issue. I feel Arapahoe County has added many regulations far beyond the regulations adopted on a statewide basis by Colorado.

Civitis tankless systems continuous air monitors, and their certification from Project Canary show that they work to produce oil and gas in the safest and cleanest way, leading the industry. Why wouldn't Arapahoe County embrace a company that works hard in this matter so they can be an example for other companies across our nation?

Civitas is Colorado's first carbon-neutral oil and gas producer, that is committed to leading the transition to a low-carbon future by reducing emissions across their operations and continuing to partner with local communities their employees call home. They have met all rules and set backs established by both the state of Colorado and Arapahoe county .

Holding up a \$700 million dollar project within Arapahoe county makes no sense to me. They will bring jobs to our county which means commerce, buying and spending including taxes to our county and cities.

It bothers me that every safety report that was discussed at past meetings were not results from Civitis actual working wells or out of nearby Weld county that has abundant wells within residential housing developments or nearby states Wyoming, Oklahoma, Texas and Utah . The entire focus was California shared by a special interest group.

Please don't let a few people determine our fate in Arapahoe County. Our country still needs clean oil and gas. Rising gas prices have a direct effect on inflation of everything we eat or use. These people who are still advocating further regulations with the hope of eliminating oil and gas production in Colorado are still dependent on all products made from oil. They are still dependent on gas to heat their homes while enjoying gas log fireplaces. Most likely they still have a world of plastics in their homes. High gas prices contribute directly to increased costs for food and products. Lithium mining and production of wind turbines is an entire further discussion of pros and cons. Our best defense is oil and gas independence. Almost all communities across our state are not prepared for full electric only

use at this time. We just aren't ready but we can continue to prepare for further energy options while still utilizing oil and gas.

Our oil and gas companies in Colorado have made great strides towards a greener society at the same time drilling and refining the oil and gas we have available. The time has come to approve his project that you have in front of you today.

08/16/2024

Submitted by: Kathy Dickson  
kathydickson2593@yahoo.com

My Comments as stated in blue font

Submitted on-line 08/16/2024 to the Arapahoe County Public Works & Development

From Email received on 08/16/2024 from:

**The County Line Weekly Newsletter**

**From:** lsummey@arapahoegov.com

**To:** Kathy Dickson

The proposed draft amendments are available at [www.arapahoeco.gov/oilandgas](http://www.arapahoeco.gov/oilandgas). Submit your comments using this form through Aug. 26, 2024.

Item 1:

- Financial assurance of \$95,000 for each approved wells on a pad. This proposal ensures there are sufficient funds to cover the costs of plugging, abandoning and meeting the State's requirement for site reclamation, which protects the environment and public interest.

**The assurance of \$95,000 might be adequate at this time in 2024; however, it may not be adequate as time rolls on. An additional phrase might include:**

**Financial assurance of \$95,000 for each approved well on a pad with: "an increase of xx% (certain percentage) each year to accommodate current inflation prices."**

Item 2:

- Air quality monitoring that will identify areas with poor air quality and pollutants responsible for it.

**The wording should include who will be doing the monitoring – is it a current paid position, or one that will be created and who will the individual doing the monitoring work for, and report to, and how often will the monitoring be conducted? Transparency is the key here – more information than you need, but clarification is important for this issue.**

**Item 3:**

- Proposed County inspection program that would conduct site inspections twice a year at every oil and gas site within unincorporated Arapahoe County. These inspections will be in addition to inspections done by the state Department of Public Health and Environment and Energy and Carbon Management Commission (ECMC).

**The "twice a year" is not adequate – it should be at the very least once a month. Safety of the community, the land, and flora and fauna, is of the utmost importance when dealing with such situations which can be devastating, as we have learned, to any living creature close to these wells.**

**Item 4:**



- Increased setbacks would apply to new development from oil and gas facilities. Setbacks would increase from 250 feet to 2,000 feet. Setbacks from a plugged and abandoned oil and gas well that was abandoned in 2014 or later would increase from 150 feet to 250 feet.

**Is the setback of abandoned wells prior to 2014 not as important as those after 2014? Can't we increase the setbacks to be the same in both instances?**

**Item 5:**

- Prohibiting commercial injection wells for the disposal of wastewater as the result of fracking. During oil and gas drilling, operators will inject used, contaminated water from the hydraulic fracturing process into underground wells placed in deep rock formations for disposal.

**Prohibiting commercial as well as well owner injections is mandatory for the disposal of wastewater as the result of fracking, before and during oil and gas drilling, so to not contaminate the land or any material beneath ground-level land.**

**From:** [Laura Gundy](#)  
**To:** [Energy](#)  
**Subject:** Response comments to consider in regard to the Oil and Gas Regulations Open House  
**Date:** Wednesday, September 4, 2024 6:59:49 PM

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Dear Bryan Weimar,

I am writing in response to the open house last night for the proposed oil and gas regulations. I am personally impacted as I live in the Wheatlands community which will be extremely close to the proposed Lowry Ranch CAP. As I review the proposed regulations and consider the size of the Lowry Ranch CAP, I would like to suggest that these regulations have different levels as far as setbacks are concerned (as well as other specific regulations) as they apply to different CAPS. I do not believe a "one size fits all" approach can work and truly be attentive to protecting the environment and the people that live in the impacted areas.

As I consider these regulations, they may be sufficient for a smaller scale project but they do not feel sufficient for the size and location of a project such as the Lowry Ranch CAP. Are these regulations truly taking into consideration the **cumulative impact of a CAP that includes 166 wells**? I don't believe they are. What may be safe for one pad of 33 wells quickly becomes unsafe when amplified by other wells in such close proximity.

Please take into consideration these different projects and create regulations that address the different needs to keep our environment safe.

On a personal note, in 2017, we built our home in the Wheatlands Community because it felt like a safe place to raise our son. Never were we informed that the land directly to the east of us would soon be turned into a massive fracking project. Never were we informed that our specific land was part of a territory that could be leased out for fracking. I believe it is unacceptable that homes were allowed to be built and people did not have to be informed. We now are looking daily at options to move as we no longer feel our health is safe with what lies ahead. A move at this point would be financially damaging. It would be emotionally damaging for our son who has made friends and built community. It would be damaging in all aspects except one. Given that our neighborhood may become dangerous to our physical health, we don't know that we have a choice. We continue to attend any meeting we can to speak out and hope our words will be heard and considered and I am watching this project go ahead without any consideration of the voices of the people that live in this area who will be severely impacted. Would you raise your family in a neighborhood that comes with an increased risk of cancer, asthma, and other health issues? As a mother I find it an impossible place to be to try and decide if I do what is right for my child's emotional health or physical health. I am not alone in this. I will say the regulations are not strict enough when you have

thousands of families in the exact same dilemma as we are and trying to figure out what we do to protect ourselves when it does not feel like the people responsible for protecting our areas are.

I do thank you for taking the time to hear my words and I pray they are truly heard.

Sincerely,  
Laura Gundy



**Business Address:** 6499 Poppy St, Arvada CO 80007, USA

**EIN-82-344-5666**

**Website:** [www.madhvi4ee.com](http://www.madhvi4ee.com)

**Email:** [madhvi4ecoethics@gmail.com](mailto:madhvi4ecoethics@gmail.com)



Madhvi4ee, MadhviChittoor



MadhviChittoor



MadhviChittoor, Madhvi4EcoEthics

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**From**  
**Madhvi Chittoor**  
**Eco-Warrior, Founder of Madhvi4EcoEthics, Colorado.**

**Sep 3 2024**

**To**  
**Arapahoe County Commissioners,**  
**Arapahoe County, Colorado.**

**Dear Hon'ble Arapahoe County Commissioners,**

Thank you for all your work on the Oil and Gas rule making.

I am Madhvi Chittoor, 13 YO Eco Warrior, youngest UN Child Advisor, 2024 Time Kid of the Year honoree for advocating for Planet Earth and voted Best Upcoming Peacemaker by 14 Nobel Peace Prize Laureates. Please visit my website [www.madhvi4ee.com](http://www.madhvi4ee.com) for all my community work locally, nationally, and globally.

I have reviewed the Arapahoe County Oil and Gas regulations.

I have a few important requests:

- 1) Please increase setbacks to 3000 ft for residential neighborhoods from oil and gas locations and especially Working Pad Surface instead of the 2000ft.
- 2) Please increase setbacks for residential neighborhoods from abandoned wells too to at least 2000 ft. Abandoned wells can leak oil, gas, and other toxic chemicals into the surrounding soil, air, or groundwater. They can also emit methane, a gas that can seep into nearby buildings and pose major health hazards.
- 3) Please mandate in the land use plans that the Oil and Gas Operator must plant 2 rows of trees - one row of evergreen trees and one row of fast-growing deciduous trees along the perimeter of the oil and gas location. This would improve the Visual Appeal, mitigate all kinds of pollution and also benefit Colorado's \$28 billion tourism industry. The oil and gas companies have reaped lots and lots of profits but they are not containing the environment pollution by any means.
- 4) Please mandate soil sampling before and during operations up to depths of 50 ft at various points under the Oil and Gas location.
- 5) Please mandate the oil and gas operator to dig water-sampling wells at various points in the oil and gas location. These water sampling wells will help to monitor the groundwater and surface water toxicity.
- 6) Please mandate CAS numbers for all chemicals that are used in oil and gas operations, even if the oil and gas operator says that they are proprietary.
- 7) Please mandate monitoring surface temperatures in the oil and gas location.





**Business Address:** 6499 Poppy St, Arvada CO 80007, USA

**EIN:** 82-344-5666

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**Email:** [madhvi4ecoethics@gmail.com](mailto:madhvi4ecoethics@gmail.com)



Madhvi4ee, MadhviChittoor



MadhviChittoor



MadhviChittoor, Madhvi4EcoEthics

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8) Please mandate monitoring sulfur dioxide monitoring at the oil and gas location.

Please, as Commissioners at the County level you have the additional layer of power to protect public health and mitigate the negative impacts of the oil and gas operations to our ecosystems.

Looking forward to your positive, kind consideration and implementation of my above suggestions and

Looking forward to hearing from you

Thanking you

Best Regards

*Madhvi C*

Madhvi Chittoor

My name is Merrily Tohill. I moved to Colorado in 1967 because my husband, a geologist, got a great job with an oil company here. We started our family which grew to three some and were enjoying the good life, skiing and camping, enjoying the beautiful environment. That changed drastically in the late 80's when the oil and gas industry suffered great losses and stopped production here. My husband's job was gone, leading to the loss of our home and my return to work after 13 years full time mother and homemaker. I have been a resident of Arapahoe county over 30 years. Because I survived this experience I am aware of how other families are affected by the decisions made regarding oil and gas production. Oil and gas provide not only jobs and energy, but also many products, national security and tax revenue which are all important to the welfare of the people of this County. I am aware that the oil and gas companies have made many improvements in operations and quality control over the years to provide clean energy.

As a resident of Arapahoe county for over 30 years I am asking you to avoid stiffling future oil and gas production in this county with more regulations.

**From:** [Gmail](#)  
**To:** [Energy](#)  
**Subject:** Question regarding oil and gas amendment  
**Date:** Sunday, August 4, 2024 10:07:03 AM

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**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning,

One of the new amendments proposed said to:

- Prohibiting commercial injection wells for the disposal of wastewater to alleviate the risk of potential leaks and compromising the water table. During oil and gas drilling, operators will inject used, contaminated water from the hydraulic fracturing process into underground wells placed in deep rock formations for disposal—this regulation would prevent this practice.

This sounds like a good idea but I have a concern that is not stated in this amendment. Where are these operators going to dump that waste water now? As I'm sure you're aware most hazardous materials and landfills items in general eventually find their way on a barge to India or other 3rd world countries and end up getting dumped in the ocean. This directly pollutes our water and food. Dumping it deep in the ground in a highly sealed well although not perfect at least provides some protection against those hazardous chemicals. Dumping directly into the ocean doesn't do anything. So again my question is, how are you going to dispose of these waste waters to insure that they will not be reentering our water supply in an alternate and more dangerous way?

Respectfully,

Miles Williams

**From:** [Rachel Searing](#)  
**To:** [Energy](#)  
**Subject:** Concerns about Wells in Arapahoe County/Aurora Reservoir  
**Date:** Thursday, September 5, 2024 8:52:18 AM

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Hello,

I have been closely involved with this process to get the Lowry CAP approved. I am highly disappointed that it was approved to move forward, considering how vocal the community has been against it.

That being said, I am specifically concerned about the three closest wells to our community: Sunlight Long, Beaver and Secret Stash as they are only 3000 feet away from the Aurora Reservoir and within a mile of elementary schools.

This community is filled with children and people who have spent anywhere from \$500,000 to \$1 million for their dream homes to raise their families. It is distressing to think that we have the likely outcome of polluted water, air and soil, plus dead wildlife due to this irresponsible and greedy decision.

**I BEG you to move these well farther away from the schools, homes and reservoir.**

Rachel Searing  
80016

**From:** [Rachel B.](#)  
**To:** [Energy](#)  
**Subject:** Oil and gas regulations  
**Date:** Wednesday, September 4, 2024 7:33:26 PM

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Dear Commissioners,

My neighbor and I took the time to attend the Open House last night. Honestly, it was beyond underwhelming. The folks staffing the tables barely had any answers and constantly had to refer to Ava to get any semblance of what was going on. I felt as though I was in the Twilight Zone. It was a slap in the face to not have ONE Commissioner in attendance, not to mention that it was again held directly across from the Civitas Arena. We spoke directly with Ava about the resources needed to replace Diane Kocis' role (Energy Specialist), she said that they realized it's more than a one person job. Chris Laramie lasted 8 weeks before he quit and because they are all so short staffed they pulled the position so they could focus on the regulations while they "create a bigger planning department". Ava said directly to fellow Southshore resident that they have been directed, by you, the Arapahoe County Commissioners, to all help get the regulations "done" by the general election. This is unacceptable on so many levels.

The residents of Arapahoe County deserve better. First and foremost, I urge the Commission to **HALT ANY AND ALL current and incoming applications for Oil and Gas permits in the County until the County can be FULLY STAFFED with legitimate, educated and experienced personnel to fill in the planning department.** My biggest concerns are **Sunlight-Long, Beaver and the Secret Stash** which are located unbelievably too close to multiple schools and thousands of homes. This land was leased back in 2011 before these developments were even in the picture. **The well pads must be moved a minimum of 5 MILES away.** Follow the science. This can be done, Civitas has the capability to do this and as representatives of residents across Arapahoe County, it is your job to protect us.

Moving Sunlight-Long farther out would mean road accessibility further east, roads that would be home to 'brine' with radioactive materials. You need to bring relief to the thousands of residents living so close who are dealing with mental health issues already with the thought of these projects being in close proximity. Air, water, and land will be affected and this relief would have less impact on wildlife, recreation at the reservoir, etc. It would also not require rebuilding the roads closest to the Mead district in Southshore.

It is time you make people over profits your priority. The attention is on the County to make safer decisions that will have a direct impact on the residents who voted you in.

Best,  
Rachel Markowitz  
Southshore resident



## Comments provided by Robert Sterling, resident of Bow Mar, Arapahoe County, CO

I am offering some comments to each of these proposed amendments and my comments are listed in blue for each of the proposed amendments,

### Proposed Oil and Gas Regulations

Planning staff is proposing amendments to increase regulatory protections for oil and gas operations within unincorporated Arapahoe County.

The proposed amendments include:

1. Requiring financial assurance of \$95,000 for each approved wells on a pad. The cost will be adjusted annually for inflation. This proposal ensures there are sufficient funds to cover the costs of plugging, abandoning and meeting the State's requirement for site reclamation, which protects the environment and public interest. **The Colorado Energy and Carbon Management Commission's (CECMC's) 700 Series rules (22 pages) detail the amount of financial assurance the state requires for all non-plugged wellbores and active wellbore permits. The rules provide various options for meeting financial assurance requirements, but typically operators provide financial assurance based on both its daily average per well production and the total number of operated wells. The required financial assurance per well can range from \$1,500 - \$18,000.**
2. Requiring air quality monitoring that will identify areas with poor air quality and pollutants responsible for it. This proposal would use air quality sensors and other devices to monitor air quality to protect public health. **The Colorado Department of Health and Environment (CDPHE) Air Pollution Control Division (APCD) requires 24-hour air quality monitoring of volatile organic compounds (VOCs) surrounding the border of all oil and gas locations from construction start through the first six months of new production. Each month, a report showing all air sampling results must be submitted to the CDPHE and local government.**
3. Creating a County inspection program that would conduct site inspections twice a year at every oil and gas operation within unincorporated Arapahoe County. These inspections will be in addition to inspections done by the state Department of Public Health and Environment and the Energy and Carbon Management Commission (ECMC). The County inspection program would be done through an intergovernmental agreement with the state ECMC. **No comment.**
4. Increasing setbacks from oil and gas facilities for new development. Setbacks would increase from 250 feet to 2,000 feet. Setbacks from a plugged and abandoned oil and gas well that was abandoned in 2014 or later would increase from 150 feet to 250 feet. **The CECMC's Mission Change Rules (effective January 15, 2021), specifically Rule 604, increased the setback between the Working Pad Surface (edge) of a Location to a Residential Building Unit (RBU) or High Occupancy Building Unit (HOB) to 2,000 feet. Locations may be sited between**

**500 to 2,000 of an RBU or HOBU, but only with informed consent of the owners and tenants. The CECMC rules provide a required setback from a plugged and abandoned oil and gas well of x ft. ECMC does not have different setbacks from P&A'd wells for development.**

5. Prohibiting commercial injection wells for the disposal of wastewater to alleviate the risk of potential leaks and compromising the water table. During oil and gas drilling, operators will inject used, contaminated water from the hydraulic fracturing process into underground wells placed in deep rock formations for disposal—this regulation would prevent this practice. **The CECMC has primacy (primary enforcement authority) over all injection/disposal wells in Colorado (refer to 800 Series rules, 13 pages). Any commercial injection well that would allow for the disposal of oil and gas wastewater (defined as a Class II Underground Injection Control (UIC) well) would be held to standards of the US EPA National Primary Drinking Water Regulations, which is designed to protect the water table. The rules are comprehensive and stringent.**

**From:** [Robert Graham](#)  
**To:** [Energy](#)  
**Subject:** Truck Operation - Oil and Gas Regulations Arapahoe County  
**Date:** Friday, November 8, 2024 9:05:48 AM

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The Commission,  
I have read the proposed amendments and for the most part am pleased with the regulations as recommended for approval.

One area of operation in my opinion is lacking in substance and regulation. The amendments reviews truck traffic and suggest actions such as reduced idling, minimize operation near schools, etc.,

One key issue that is missing either in the air quality section or the access and county road discussion is management of the truck fleet itself especially for the life of the proposed project (25 years).

The trucks used should be regulated to reduce emissions from the trucks themselves, truck maintenance must be monitored, truck modernization must be required over the life of the project as new technologies further improve air quality and noise emissions reduction.

Thank you for this good work and for permitting me to request the above as an addition to the amendments.

Regards  
Robert Graham  
7133 S Uriah, Aurora

Robert L. Graham

310 504 4807

# Report for Oil and Gas Phase 2B Comment

## Response Counts

Completion Rate:	100%		
	Complete		73

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Totals: 73

1. Please provide your feedback as it regards the proposed oil and gas amendments or attach a file in the spaces below.

**ResponseID    Response**

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1                    A setback of 2,000 feet isn't nearly enough. The average person takes only about 8 minutes to WALK 2,000 feet. Leave No Trace suggests a single person should walk at least 200 feet from water sources and trails to deposit a single instance of human waste or wash dishes. So the current 250 feet is just 50 feet additional from what we suggest a single person should do alone in the Rockies while camping...2,000 feet is the least you can do. The very, very least. Please recognize that and do right by the people of Arapahoe County. My kids are depending on you to safeguard their health and future.

2                    I support increased regulations on oil and gas

3                    This all looks good. Harry Yosten

4                    Drill baby drill. Let's stop using foreign oil. We need to replenish the strategic oil reserves that have been depleted.

5                    As a homeowner who will be in direct line of one of the proposed sites, I fully support the amendments and would expect protection and support by all means necessary for myself, my children, pets and the wildlife to continue living in a safe and healthy environment. Thank you for your consideration and please approve and accept the amendments for all of us.

6                    Require IGAs with all counties and municipalities impacted by the drilling, including placement of wells and horizontal fracking bores (e.g., fracking under any Aurora reservoir, homes, schools, hospitals and other occupied structures located in the City of Aurora).

7                    I strongly disagree with any and all of it, You are selling us out for the money not to maintain a healthy lifestyle in Aurora. Its cheaper for the oil companies to pay fines than adhere to rules!!!! Please don't allow any more fracking in our county!

8                    Given that oil/gas production produces not just energy but substantial tax revenue to the county, and that the county WANTS TO RAISE taxes on the citizens of Arapahoe County, it would be FOOLISH for the county to TOTALLY ban or burden the producers with regulations that cause the proposed wells to be canceled. We need the tax revenue. Please be smart in the demands made on this drilling project.



## ResponseID Response

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- 9 Please, please, PLEASE do everything you can to protect wildlife, open spaces, and the environment. The population around here is exploding, the traffic is a nightmare, and Arapahoe County is losing its way. Too many houses and condos are being built with no sense of aesthetics, crowding, or environmental impact. These developments give nothing back to the community, they're eyesores and negatively impact quality of life. They bring more cars, more noise, more pollution, and destroy more habitats that should be protected. Anymore the growth in Arapahoe County is metastatic. I've lived here all my life and it's heartbreaking to see this beautiful area disappearing. Please do all you can to preserve this region. And all of Colorado. Our poor state is being overrun and overdone, especially by oil and gas!! Help!
- 11 My name is Charles Daldry. I am a retired Air Force Msgt. I have lived in Aurora for 33 years. I am in favor of moving forward with this project. Reducing oil and gas production tends to increase energy costs for us on a fixed income. Also oil production is important to our national security. Our strategic oil reserve has been drawn down with no effort to replenish it, and our pilots need to fly frequently to maintain their combat skills. Tanks, trucks, and helicopters are all needed,for modern warfare, and all need petroleum.
- 12 Increase setbacks to 2mi from any residential property to reduce likelihood of air quality contamination.
- 13 I am in favor of these proposed amendments. I have only one concern about prohibiting the use of wastewater in the fracking process. That is, is it possible that used wastewater could be allowed in the fracking process if and only if there was a standard or level of permitted contaminants or a degree of allowed contamination in proportion to the total amount of used water? My concern is two-fold: to promote water conservation and reuse, which I am unsure the amendment as proposed embodies. But of course, groundwater protection and safety for humans, livestock, wildlife, soils,, and natural eco-systems should be prioritized

## ResponseID Response

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14

Subject: Opposition to Oil and Gas Phase 2B Dear Arapahoe County and other decision makers, I am writing to express my strong opposition to the proposed Oil and Gas Phase 2B for oil drilling within our community. As a concerned resident, I believe it is imperative to convey the significant detrimental impacts that such activities would have on our community, economy, and environment. Allowing oil drilling in our area poses grave threats to our environment. Numerous studies have consistently demonstrated the adverse effects of oil extraction on air and water quality, soil health, and biodiversity. The extraction techniques, particularly hydraulic fracturing (fracking), have been associated with contamination of water sources, air pollution, and habitat destruction. These environmental hazards not only jeopardize the delicate balance of our ecosystems but also endanger the health and well-being of residents, particularly vulnerable populations. Furthermore, the economic rationale for oil drilling must be critically examined. While proponents may tout potential short-term economic gains, it is essential to consider the long-term costs and risks associated with such ventures. Studies have shown that reliance on fossil fuel industries can lead to economic instability, as evidenced by the boom-and-bust cycles experienced by many oil-dependent regions. Moreover, investing in renewable energy alternatives offers a more sustainable and resilient path forward, creating jobs and fostering economic growth while mitigating the adverse impacts of fossil fuel extraction. In addition to environmental and economic concerns, the proposed oil drilling project raises profound questions about its compatibility with our community's values and aspirations. As residents, we cherish the unique character of our neighborhoods, the tranquility of our surroundings, and the well-being of our families. Oil drilling activities, with their noise, traffic, and industrial infrastructure, threaten to disrupt the harmony of our communities and compromise our quality of life. Given these considerations, I urge the Arapahoe County and all other decision makers to reject the proposed Lowry Ranch Comprehensive Area Plans and others for oil drilling. It is imperative to prioritize the health, safety, and prosperity of our community over the narrow interests of the fossil fuel industry. I implore you to heed the findings of scientific research, engage with stakeholders, and uphold our collective responsibility to safeguard our environment for future generations. Thank you for considering my concerns. I trust that you will make the right decision for the well-being of our community and the preservation of our environment. Sincerely, Sean Stevenson (970)-946-5796

17

My thoughts about new oil regulations for Arapahoe County I was born in Denver along with all of my brother and sisters. It was a great place to grow up. Hiking, camping, fishing and skiing are a part of my good memories of Colorado. When we would drive from Ft Collins to Denver, I enjoyed seeing the oil pumps out on the fields. Like everyone else, I want to see that things are clean and safe. I am retired now and my dollar does not go as far as it used to. I would like to have enough money for food, a place to live and go out sometime to have fun. With more cost attached to oil, and gas, I don't see that happening . What I do see now, is a duplication of rules that Arapahoe County would like to do to those oil fields. Colorado already is doing these things mentioned on the proposal. I think that before making more rulings, we should see if they are needed. Causing the price of oil and gas to go up. Wait and see how the current ones are working, before wasting my money on duplications.

## ResponseID Response

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18 I am strongly against this project moving forward and the insistence of this project moving forward is concerning. Regardless, at a minimum, additional amendments must be included. In addition to air quality testing there must be water and soil testing. Additionally, what is the recourse for citizens when there is inevitably a leak and/or pollution? I used to live near Suncor and deliberately moved away due to constant leaks and pollution. Nothing is done there and in no way do I have confidence this would be any different.

21 My name is Walt Curtner. Thank you for providing an opportunity to provide comment about this issue. I've lived in Arapahoe County for over 50 years, and my wife and I have 4 children who also grew up in Arapahoe County, where our children went to schools in Arapahoe County. Before retirement, I was the Director of Risk Management for a petroleum company. In my career there, I was responsible for workers compensation claims, and found that there were not many worker's comps claims. I witnessed a safe and effective industry that was focused on safety and following standards. Years ago, when there was a lot of enthusiasm about cleaner natural gas to bridge the gap to more alternative energy. We should look at using all energy sources to hit Colorado's energy goals, but need to realize that with utility bills soaring, we need to do everything to provide relief to people in Arapahoe county. I'm under the impression that energy costs have soared by 25%. Just like everyone in the county, I want to keep things clean for my children, and grand children and the natural gas industry has shown that it can operate safely and continues to exceed EPA emissions standards in the state. I urge you to not proceed with any further regulations.

## ResponseID Response

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22 Hi and thank you for letting me comment today. My name is Shannon Erdmann. I am a safety engineer with An environmental science degree occupational health degree, and safety engineering degree. I am a fourth generation Colorado mother of three girls, grandmother of eight girls one boy my roots are deep in Colorado from my ancestors that came to Colorado and homesteaded on the Eastern plains to my grandchildren who are sixth generation Colorado residents. I will always wanna live here because we have all four seasons sometimes in one day, but we're truly blessed. We have an impressive list of state and national parks and taking a weekend drive is always a favorite thing to do to be one of the best places to start a family or retire because the costs were good or at least lower than the average of a big city, we can no longer brag about that now unfortunately I am working two jobs just to make ends meet. I had planned to retire at 67 but now I don't think that's even going to be possible with the rising inflation and rising cost of everything , it is worse for the youth just starting out in Colorado. My family are not alone in this predicament every family whether starting out or retiring are really having to question if they can afford Colorado. The average cost of one bedroom apartment is over \$1000 per month we simply cannot afford to make everything more expensive , when we do not know the return of investment, Colorado has always been very conscientious about our environment. The safety of our Colorado lifestyle fracking has been increasingly perfected in Colorado. Colorado is truly the safest place for oil and gas production, Bar none. Oil and gas production is absolutely critical to our delicate fiscal balance in our beautiful state oil and natural gas benefits Colorado's energy industry, contributes billions to our states economies and supports hundreds of thousands of reliable good jobs. I am one of those recipients. My second job is in oil and gas and without it I would have to rely on public assistance. I support fracking and urge you to support the project for the betterment of Colorado. Like all of you, I want to safe and healthy state, but we simply have to be guided by common sense and a balance of what it takes takes to ensure the states longevity for generations to come. I urge you to follow the heart of a true Colorado that Values conservation, the environment, and our way of life we thank you for being so diligent with your current regulations and urge you not to create a hindrance with a new setback rule. I do not believe this rule will be a benefit to the health of Colorado residence but will create a greater cost to Colorado families financially!!!!

23 No new wells should be approved until the new regulations are in place. New housing developments should be required to meet the same setback rules.

26 It all sounds needed. The oil and gas industry needs monitoring because they have been proven to be untrustworthy if left without supervision. I like the check and balance with state regulators.

## ResponseID Response

27 I inherited mineral rights in Weld County from my late grandparents which is managed by Civitas. My grandfather owned a farm and was the CASE distributor of farm implements during the Great Depression and beyond. CASE is a competitor to John Deere but local folks know and trust this company. At that time, oil and gas were necessary for American farms to succeed. No one at that time understood the long-term health effects of burning fossil fuels. My grandparents eventually sold the farm but retained the mineral rights. Today, it is clear that there are better, healthier alternatives to extraction. Solar, wind, and geothermal are just a few of the sustainable energy sources available to consumers now. Many extraction companies have shifted to build solar fields, wind farms, and recalibrate drilling for geothermal. We simply cannot continue to risk the health of Colorado residents. Burning fossil fuel has a negative impact on clean air, safe water, and healthy soil. You may ask why – if I object to extraction – didn't I sell my rights? I do not want to see anyone benefiting from this small drilling operation when I can donate the income to reputable non profits like Citizens' Climate Lobby and Clean Air Task Force. I heartily protest any leasing now and in the future which does not take into consideration what is best for the community and not profits for a corporation.

28 I think the above statements make sense. However, oil and gas wells are one of Colorado's industries that provide many decent paying jobs, so I don't want the amendments to be prohibitive of that. We need oil and gas for a multitude of manufactured goods, not just gasoline for cars and heating for homes.

29 Drill baby Drills we need to build our strategic oil reserves back to maximum.

30 As a 24-year resident of the county, I'm concerned to see Arapahoe County spending money and other resources on these things when the County is failing to meet, basic infrastructure needs - e.g., road and alleyway improvements. These appear to be expenditures for mainly virtue signaling purposes versus for real, tangible benefit to the community. Arapahoe County needs to focus on the basics and fix those before going after what are mostly esoteric concerns.

31 What standards will be used for determining air quality. EPA standards capricious and unreasonable. County inspection program, who will write those rule? Will industry have representatives help write the rules? Will the be fair or just used to bludgeon the industry.

32 Thank you from a resident who is very worried about the closeness of frack sites to the reservoir and to houses.

34 I agree that oil and gas development should have better regulations to protect the environment and public health. Please implement the new amendments.

## ResponseID Response

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35 Hello my name is Alexander Davis. I have been a resident of the city of Centennial, Arapahoe county for 7 years now. These additional amendments are clearly road blocks setup to with the intent of slowing down the process and equate to government overreach in my opinion. In a time of rising property taxes, the idea of slowing tax revenue should not be entertained. When property taxes go up, household budgets get strained. When tax revenue is lowered then public health initiatives are affected. This is not a good combination for our modern society. I ask that you reject these amendments and continue with the project as-is currently agreed upon.

36 My name is Vallie Smith and I have been a resident of Arapahoe Co. for nearly 39 years. I once saw my county as one that was a good steward to the environment, one that preserves the land and air for future generations, and most importantly, I saw a county that took action to make the quality of life for its residents the best in every way possible. We used to address issues alongside farmers and industries to either mitigate or completely solve environmental problems while also putting food on the table. We called this a good working relationship, balancing industry and the environment while seeking to always get better. Today, I see a massive influx of new residents year after year, which creates greater energy demands, greater pollutants and greater waste with each additional person who moves here. In addition, I see wildlife disappearing, pushed out because of manicured lawns, polished blue grass carpeted parks, new cars, high tension wires and over-congestion. Before we begin attacking an industry that gives us this very way of life, should we not look at ourselves and see how we ourselves are polluting our lands and waters. Personally, I spend 3 to 4 hours of my own personal time each week walking along roadways picking up trash. I am told our county cannot afford to keep up with this, so out of respect for my home and neighborhood, I do it myself. It appears I only have to walk 20 feet to fill a large industrial trash bag. By the time I am finished, my little jeep is filled to the brim with my neighbors' trash and yet I see no evidence of pollution from the Oil and Gas industry while trudging for trash. In fact, I am grateful I can afford to put gas in my vehicle to do this. Perhaps we should stop pointing fingers at industry and start pointing them at ourselves. Perhaps, we go back to the roots of Arapahoe County and work together to ensure that the oil and gas industry can continue to provide a better way of life for families. Today, I am asking that Arapahoe County looks inward to solve problems, before passing blame to an industry that works hard for us. I am urging the County Commissioners to not move forward with any new regulations.



37

Dear Arapahoe County Commissioners, We are writing to you today regarding the proposed Sunlight Long well pad. This pad is proposed to be 3,220 feet from all neighbors who live along the border of the Southshore community. We are opposed to this well pad so close to our homes for many reasons. The most important reason is our health and the health of our children. We have 1,000 children attending schools within a mile radius of 2 of the proposed well pads. And several more wellpads are being proposed in the Lowry CAP, adding to the cumulative effects of air quality for our entire community! The Colorado and County regulations are not sufficient to prevent health risks. You do not need to be a microbiologist, pediatric oncologist, or pulmonologist to look at a massive well pad with their chemicals and gigantic blender trucks , tanker trucks, to see the danger to all of the human beings who live near this operation. Thousands of peer reviewed studies documented health hazards when you have well pads so close to a residential community. Bloody noses, coughing, shortness of breath, unexplained rashes, chronic asthma are just some of the documented health effects in fracking communities. Our government agencies and elected lawmakers still prefer to only listen to Oil and Gas research and studies. Depression, anxiety, and sleep disorders are well documented in communities close to fracking. Colorado communities are feeling hopeless and abandoned by the government officials that are supposed to protect us. Most in our community do not want to live in Southshore and surrounding affected communities if you approve these well pads. but they cannot afford to move, to buy another home at current rates. Fire is already an exttreme risk in the 32,000 acres behind our community. Now lets add 32 wells running under hi pressure. What is the evacuation plan for our community? Civitas' plan is to put a pipeline in front of this well pad, and then Civitas wants to put a 2 lane road big enough for tankers to drive on, IN FRONT OF THE WELL PAD! Now how far will this be from our properties/community? Our children and grandchildren who live along this line will be staring at tankers driving by. Government officials defensively say that Colorado has the strictest oil and gas regulations in the country. It is NOT a law that oil and gas companies should automatically get to frack as close as they can to populated areas! What about us? What about all the human beings who have to live near wells? Why wasn't Crestone told they can frack 2 miles or more away from us? Why were they given the very best scenario for their multi million business? Why wasn't the decision made to put us, the community first? Why our lives being ruined so Crestone can be given the very best scenario for their business? Make it less convenient for them to destroy our community. Commissioners, would you approve this project if you lived in our neighborhood, in our homes? In homes of hundreds of neighbors who live as close as we will to the well pad? Would you approve this 3220 setback if your grandchildren lived in our homes, or your pregnant daughter? Or your elderly parents? ECMC Commissioner , Brett Ackerman, stated at the decision making Hearing for the LOWRY CAP that Arapahoe Commissioners are the governing body for our community and he does not want to override the decisions made by an elected body to decide how to govern the safety of their constituents. Every government agency failed us. Now we are relying on you to protect our rights. The right to live as you all live...in an environment not poisoned by pollutants. Choose us!

## ResponseID Response

38 My name is Mark Stallins, and I am a resident of Arapahoe County, and serve as the President/Founder of the National Honor Tour. We dedicate time and resources, traveling the country and honoring fallen service members, ensuring that their legacy is protected. This line of work often takes me from corner to corner of the country. The mileage that is put on my vehicles has turned me into a DIY mechanic to cut down on costs, as well as a Logistician, finding the most efficient routes to conserve fuel. Arapahoe County is lucky to have such available resources at our disposal, and in a time of unpredictable economic certainty, we should, as a County leverage any and all resources we have to ease the burden on taxpayers. I am a Coloradoan, and want clean air. We need to realize that emissions from the oil and gas sector have gone down, and we should let previous regulations have breathing room to cut down on emissions, as they were designed to. Placing blame on one industry is unreasonable, and I urge you not to proceed with any future regulations on the Oil and gas Industry.

39 What kind of fucking morons plan a housing sub division next to a land which is zoned to be fracked next to a reservoir which serves water for domestic use ? The answer is arapahoe county city planners :)

40 My name is Robert Nord. I have lived in Arapahoe County for 7 years, and I was born and raised in Colorado. In my life, I have traveled all over the country working with the Department of Energy, handling labor relations and resolving differences. I was fascinated with the power division and the engineering of power plants and their efficiency for our society. Thank you for working so diligently with the energy industry to ensure we have safe and clean production. During my time working in the field, it was amazing to see the innovations made to clean up production and the new technologies created to mitigate pollution back then. I believe the science today of drilling for oil and gas is close to perfection. Over the years, the industry has continued to make huge strides in being cleaner and more efficient with energy production, just as I observed from the 1960s to the 2000s with coal production. Every plant we built brought improvements that were necessary to clean our environment. Oil and gas production is essential to our way of life in Colorado and can greatly contribute to Arapahoe County's economy, bringing the jobs we need. I urge the County not to impose new regulations on oil and gas production and to continue working with the industry to improve our technologies and contribute to a cleaner environment.

42

Dear Arapahoe County Commissioners, We are writing to you today regarding the proposed Sunlight Long well pad. This pad is proposed to be 3,220 feet from all neighbors who live along the border of the Southshore community. We are opposed to this well pad so close to our homes for many reasons. The most important reason is our health and the health of our children. We have 1,000 children attending schools within a mile radius of 2 of the proposed well pads. And several more wellpads are being proposed in the Lowry CAP, adding to the cumulative effects of air quality for our entire community! The Colorado and County regulations are not sufficient to prevent health risks. You do not need to be a microbiologist, pediatric oncologist, or pulmonologist to look at a massive well pad with their chemicals and gigantic blender trucks , tanker trucks, to see the danger to all of the human beings who live near this operation. Thousands of peer reviewed studies documented health hazards when you have well pads so close to a residential community. Bloody noses, coughing, shortness of breath, unexplained rashes, chronic asthma are just some of the documented health effects in fracking communities. Our government agencies and elected lawmakers still prefer to only listen to Oil and Gas research and studies. Depression, anxiety, and sleep disorders are well documented in communities close to fracking. Colorado communities are feeling hopeless and abandoned by the government officials that are supposed to protect us. Most in our community do not want to live in Southshore and surrounding affected communities if you approve these well pads. but they cannot afford to move, to buy another home at current rates. Fire is already an exttreme risk in the 32,000 acres behind our community. Now lets add 32 wells running under hi pressure. What is the evacuation plan for our community? Civitas' plan is to put a pipeline in front of this well pad, and then Civitas wants to put a 2 lane road big enough for tankers to drive on, IN FRONT OF THE WELL PAD! Now how far will this be from our properties/community? Our children and grandchildren who live along this line will be staring at tankers driving by. Government officials defensively say that Colorado has the strictest oil and gas regulations in the country. It is NOT a law that oil and gas companies should automatically get to frack as close as they can to populated areas! What about us? What about all the human beings who have to live near wells? Why wasn't Crestone told they can frack 2 miles or more away from us? Why were they given the very best scenario for their multi million business? Why wasn't the decision made to put us, the community first? Why our lives being ruined so Crestone can be given the very best scenario for their business? Make it less convenient for them to destroy our community. Commissioners, would you approve this project if you lived in our neighborhood, in our homes? In homes of hundreds of neighbors who live as close as we will to the well pad? Would you approve this 3220 setback if your grandchildren lived in our homes, or your pregnant daughter? Or your elderly parents? ECMC Commissioner , Brett Ackerman, stated at the decision making Hearing for the LOWRY CAP that Arapahoe Commissioners are the governing body for our community and he does not want to override the decisions made by an elected body to decide how to govern the safety of their constituents. Every government agency failed us. Now we are relying on you to protect our rights. The right to live as you all live...in an environment not poisoned by pollutants. Choose us!

## ResponseID Response

43

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## ResponseID Response

47 I heartily approve of these proposed amendments. These all seem in line with protecting air quality and safety. I would also prefer to see no new drilling or fracking. I inherited mineral rights in Weld County from my late grandparents which is managed by Civitas. My grandfather owned a farm and was the CASE distributor of farm implements during the Great Depression and beyond. CASE is a competitor to John Deere but local folks know and trust this company. At that time, oil and gas were necessary for American farms to succeed. No one at that time understood the long-term health effects of burning fossil fuels. My grandparents eventually sold the farm but retained the mineral rights. Today, it is clear that there are better, healthier alternatives to extraction. Solar, wind, and geothermal are just a few of the sustainable energy sources available to consumers now. Many extraction companies have shifted to build solar fields, wind farms, and recalibrate drilling for geothermal. We simply cannot continue to risk the health of Colorado residents. Burning fossil fuel has a negative impact on clean air, safe water, and healthy soil. I heartily protest any leasing now and in the future which does not take into consideration what is best for the community and not only profits for a corporation. Jennifer Rodehaver Boulder Colorado

48 The more restrictions you put on oil and gas means the more expensive the costs are for us, the consumer. Please stop. How are we supposed to heat our homes? Many of us are turning to alternative means to heat our houses... like burning wood in a fireplace. This is not good for the environment, but it becomes necessary because you are killing the industry that is the most efficient way to heat our homes. Hint: electrifying everything or wind-milling everything is not nearly as efficient, and actually is just as bad (if not worse) for the environment in the long run than natural gas... When the batteries die in zero degree weather, and there is not another form of heat, grandma and our children freeze to death. I don't think that is a great outcome for our county.

49 We are putting our children's lives at risk by doing this so close to our home. We thought we were buying our dream home- not putting our children and health in danger.

50 I owe a thank you, to my commissioners in Arapahoe for asking residents to contribute to this decision-making process, and taking the time to read everybody's Comment. My name is Loretta Perry, and I have lived in Colorado for over 50 years. I originally moved to Colorado for school, and started at Colorado Women's College, where I then transferred into DU and not only earned my degree, but also met the love of my life at a pizza shop in Cherry Creek. I moved away from Colorado for a sliver of time, and instantly regretted this and moved back to west to Colorado. I have seen this state explode with growth, and the town I live in now, didn't even exist when I first moved here. The state of Colorado has been a trailblazer in reducing air pollutants, and I am happy with the efforts being made to clean up the air, and I can tell they are working because the front range is less hazy, and I am able to still keep moving on my bicycle. In fact, my favorite place to ride is at the Aurora reservoir, and I personally have never had any problems, even on those high intensity days. Having seen the improvement of air quality along the front range, and the results of many, many more regulations put in place by the state, and innovative solutions from the oil and gas industry, I urge the Arapahoe County Commission to allow for current regulations in place at the state level to unfold, before any more regulations are considered.

## ResponseID Response

51 Dear Arapahoe County Commissioners, I write to you today with a plea for the wellbeing of our community in response to the proposed Sunlight Long well pads near our homes in the Mead District of Southshore. The implications of this project alarmingly encroach upon the safety and health of our families, including my three young children, who recently settled in this area hoping for a peaceful and secure environment in a well sought after school district in Cherry Creek. The proximity of the proposed well pad - a mere 0.6 miles from our residences - raises great concerns that cannot be ignored. The potential environmental pollution, disruptive noise levels, compromised air quality, and the increased risk of dust and hazards from truck traffic pose significant threats to our community's welfare. Furthermore, the impact on our property values, wildlife, fire risks, and recent alarming discovery of a WWII bomb near our homes only elevate the urgency of our appeal. Despite our efforts to voice our concerns at hearings, community events, and engagements, it seems that regulatory compliance takes precedence over genuine empathy for the residents, wildlife, and natural habitats that will be greatly affected. The complacency towards the valid fears and well-being of the thousands of individuals in our community is disheartening, especially when calls for a reasonable compromise to relocate operations further away from our homes, schools and the Aurora Reservoir remain unheard. Disturbing reports of past environmental infractions and damages totaling over \$6M since 2020 by Civitas, along with misleading claims of carbon-neutral practices, cast doubt on the company's commitment to safety and responsibility. Concerns surrounding governance, operational integrity, preparedness for emergencies, and the ability to safeguard against potential disasters are largely concerning, underscoring the company's inadequate preparedness for worst-case scenarios. The lack of a comprehensive plan to address potential risks and emergencies, combined with the inadequacy of proposed safety measures, poses an unacceptable threat to our community's safety and well-being. The need for heightened vigilance and robust safeguards to protect our families, schools, wildlife, and recreational areas from potential harm cannot be overstated. In the face of these imminent dangers and the inadequacy of proposed safeguards, we implore the Arapahoe County Commissioners to prioritize the safety and welfare of our community by rejecting the proposed well pads in their current location. Our collective well-being and safety should never be compromised for the interests of profit-driven ventures. Thank you for your attention to this urgent matter. The safety and security of our community depend on your thoughtful and responsible decision-making. Sincerely, Southshore Resident JoLynn Brown

52 No leaks no fires

53 There are numerous studies about the short-term consequences of fracking regarding proximity to development for health, water safety, ground pollution etc. Oil companies are notorious for doing the minimum safety procedures required by officials. I have come across numerous studies about long term consequences, some unintended, once activities have ceased or moved on to areas nearby. I have attached links to 5 problems in PA and TX where geysers of methane gas and eruption of contaminated salty water are shooting into the air from abandoned wells or a new fracking site that is disturbing an old, unmarked well causing the old well to "frac-out". This forces people to leave the area, and permanently pollutes the land. Is this a price we are willing to pay for short term gain? Links to the events are in the attached file.

54 Please see attached file for comments

## ResponseID Response

- 55 Dear Arapahoe County Planning Staff, 1. I want to highlight that in this recent article, the commission states the cost of financial assurances for each well is \$120k, but at the upcoming regulation hearing 9/3, the commission is only recommending \$95k financial assurance per well on the Lowry CAP. This wouldn't include inflation over the course of the life of these wells. There is also no financial assurance for fire damage or spills causing extensive environmental damage, so I'd expect the number could be even higher than \$120k per well. <https://coloradosun.com/2023/03/08/oil-gas-companies-plug-remediation-costs/> The decision should be to ask for a greater financial assurance to include for inflation over the life of the well pad. Upwards of \$130k per well. 2. Without a comprehensive emergency plan in place, the nearby public won't be immediately notified when air quality issues spike above acceptable levels. Residents will be responsible for raising these issues as they arise (as already seen with OG operations in Erie, CO), including noise, light, truck dust pollution and potential fire risks. 3. The roads that will be used to export wastewater offsite will be even closer to Southshore residents and our pathways next to the reservoir. They will be located between the well pads and bordering the homes in the Mead District in Southshore that face the Lowry Ranch. Daily truck traffic will be continuous during operations. 4. Setbacks from schools, residences and reservoir should be moved further away, at least 5280 feet (1 mile). This should also include haulage roads used to transport wastewater materials offsite to further protect human health and our precious water resources. Please use this as an opportunity to protect the residents, wildlife, reservoir and schools. We are counting on these regulations to go beyond current guidelines as we expect regulations to change over time and become more stringent as they look to protect the environment and well being of the communities in which they operate.
- 56 These are a bare minimum and should be passed. However they do not go far enough. I am specifically worried that water quality monitoring is not being addressed at all.
- 57 In addition to the above proposals - please move the proposed site for the State Sunlight - Long pad one mile farther east away from our homes and schools. Please provide sound absorptive and/or reflective baffling around all drill sites (sending the sound waves east away from our homes and schools). thank you for protecting our neighborhoods.

## ResponseID Response

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I would like to suggest that these regulations need to have different levels as far as setbacks are concerned as they apply to different CAPS. I live in a neighborhood very close to the Lowry Ranch CAP and as I consider these regulations, they may be sufficient for a smaller scale project but they do not feel sufficient for the size and location of a project such as the Lowry Ranch CAP. Are these regulations truly taking into consideration the cumulative impact of a CAP that includes 166 wells? I don't believe they are. What may be safe for one pad of 33 wells quickly becomes unsafe when amplified by other wells in such close proximity. Please take into consideration these different projects and create regulations that address the different needs to keep our environment safe and the people who are directly impacted by these projects safe.

## ResponseID Response

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61 Propose that any well pads next to residences be moved further out from homes, schools and the reservoir. The request is to move these operations at least 2 miles from any buildings, structures, schools, reservoir concrete bike pathways, and includes a recommendation, that if operators are proposing operations within a 3 mile radius of homes or schools, or reservoirs, water resources, that a study group of residents, affected party status, reservoir/water management officials, and school officials be invited to participate in the study/focus group to help evaluate the options. This would ensure community input is included on placement of wells. Thanks for your consideration!

65 Comments of Renegade Oil & Gas are attached.

67 From Bill Kroesser, Ph.D., Aurora Resident who spent his entire career helping chemical manufacturers and coal mine operators conduct their operations while avoiding harm and nuisance to residents. Enclosed are: 1. Compendium by Physicians for Social Responsibility detailing the harms of fracking as currently practiced, including references to 2,557 scientific articles showing why fracking is not healthy in or nearby Aurora: <http://concernedhealthny.org/compendium/> 2. My two-page summary of the above 3. Three versions of an article detailing the costs of reclaiming fracked land, first a summary, 4. Full article on reclaiming costs 5. American Chemical Society scientific article detailing the costs and methods used. Finally, a plea for a moratorium while we digest this wealth of information and look for other sources and observe former fracking sites to see if the damage is as bad as the experts are telling us. I understand that Arapahoe has empty positions to fill for experts to assist with these decisions. Since it takes so long to hire competent people, the County might consider having volunteers with expertise assist in the decision-making process. Many of us have had careers where we lived through the development, implementation, and eventual banning of activities that impact the public, such as: Tetra-ethyl-lead in gasoline Tobacco products Teflon manufacture Chromium 6 (Erin Brockovich) Fluorocarbons (current health hazard in WV) Lead in paint, and heavy metals in the Great Lakes Polycarbonated biphenols (PCB's) X-ray machines in shoe stores; Tanning beds Widespread use of asbestos Thank you for taking on this difficult decision. "Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking and Associated Gas and Oil Infrastructure (Ninth Edition)," October 2023 Concerned Health Professionals of New York and Physicians for Social Responsibility <http://concernedhealthny.org/compendium/> Summary of Findings (page 9 of 104 page report and 533 pages of summaries of other reports) As of 2022, hydraulic fracturing techniques had been used on an estimated one million wells across the United States to shatter rock layers and extract the oil or gas trapped inside. With hydraulically fractured shale wells now producing at least 79 percent of U.S. natural gas and 65 percent of U.S. crude oil, fracking, no longer "unconventional," has become the standard method for oil and gas extraction. As fracking operations in the United States and abroad have increased in frequency, size, and intensity, a significant body of evidence has emerged to demonstrate that these activities are harmful in ways that cannot be mitigated through regulation. Threats include detrimental impacts on public health, climate stability, water and air quality, farming and livestock, property values, economic vitality, and quality of life. Emerging science also shows that fracking is an environmental injustice, with injuries not borne equally by all. Throughout the United States, fracking harms pregnant women, children, Indigenous people, communities of color, and low-income communities disproportionately. A growing and substantial body of research reveals fundamental problems with the entire life cycle of operations associated with fracking and its infrastructure. Independent, peer-reviewed analyses



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indicate that fracking is an unpredictable process with innate engineering problems that include uncontrolled fracturing, induced earthquakes, and well casing failures that

worsen with age. Intractable problems also include radiation releases; abandoned wells that serve as pathways for contamination; and venting, flaring, and blowdowns that result in methane releases. As documented in more than 110 studies, toxic air pollution accompanies fracking. More than 200 airborne chemical contaminants have been detected near drilling and fracking operations, and air monitoring has confirmed strikingly high levels of toxic air pollutants in communities near these sites. Of these chemicals, 61 are classified as hazardous air pollutants with known health risks, including the potent carcinogens benzene and formaldehyde. Additional fracking-related air pollutants include diesel exhaust, fine particles, hydrogen sulfide gas, nitrogen oxides, chlorine, and other chemical precursors of ground-level ozone (smog), which can damage respiratory, cardiovascular, and nervous systems. In many cases, concentrations of fracking-related air pollutants in communities where people live and work exceed federal safety standards, even in some rural communities. Research shows that air emissions from fracking and flaring can drift and pollute the air hundreds of miles downwind. Indoor air pollution from gas stoves, which represent the terminus of the fracking pipeline, includes nitrogen oxides, carbon monoxide, fine particulate matter, and benzene. About one in every eight cases of asthma in U.S. children is attributable to exposure to emissions from gas stoves. Each day in the United States, more than two billion gallons of pressurized fracking fluids are pumped underground for the purpose of extracting oil and gas or, after the fracking is finished, to inject the extracted wastewater into any of more than 187,000 disposal wells across the country. As documented by more than 200 studies, these fracking-related activities have depleted or contaminated water resources, including drinking water sources. Studies from across the United States provide irrefutable evidence that groundwater contamination has occurred as a result of fracking activities and is more likely to occur close to well pads. Spills and intentional discharges of fracking fluids and fracking waste into surface water have profoundly altered the chemistry and ecology of streams throughout entire watersheds, increasing downstream levels of radioactive elements, heavy metals, endocrine disruptors, toxic disinfection byproducts, and acidity, and decreasing aquatic biodiversity. Demand for water to use in U.S. fracking operations has more than doubled since 2016. The water used for fracking that remains in the shale formation is permanently lost to the hydrological cycle. Studies also show that fracking can deplete streams and aquifers in ways that create water scarcity in drought-prone regions. Along with fracking itself, the injection of fracking waste is a proven cause of earthquakes. The disposal of fracking wastewater remains a problem with no solution. With more than 17.6 million U.S. residents living within one mile of at least one active oil and gas well, the result is a public health crisis. As documented in more than 120 studies, public health harms now linked with drilling, fracking, and associated infrastructure are well-established. They include cancers, asthma, respiratory diseases, skin rashes, heart problems, and mental health problems. Multiple corroborating studies of pregnant women residing near fracking operations across the nation show impairments to infant health, including birth defects, preterm birth, and low birth weight. Emerging evidence shows harm to maternal health—including elevated risks for eclampsia during pregnancy—and shortened lifespans among older residents living in proximity to oil and gas wells. Fracking is accelerating the climate crisis. North American fracking operations for both oil and gas are driving the current surge in global levels of methane, a greenhouse gas 86 times more potent at trapping heat than carbon dioxide over a twenty-year period and which has contributed approximately 40 percent of all global warming to date. Methane escapes into the atmosphere from all parts of the extraction, processing, and distribution system, at rates that, as demonstrated through multiple methodologies, sometimes exceed earlier estimates by a factor of two to six. Recent scientific findings indicate that slashing

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methane emissions is far more critical in halting global warming than previously understood. Liquefying natural gas via super-chilling to allow its overseas transport as

LNG adds further to the prodigious greenhouse gas emissions of natural gas obtained via fracking, due in part to the immense energy and evaporative cooling required by the liquefaction process. Carbon capture and storage, now being promoted as a tool to address climate change, is an unproven set of technologies that does not account for methane emissions, cannot obviate the climate damage created by fracking, worsens local air pollution, and, as currently practiced, mostly serves as a tool of enhanced oil recovery that allows depleted wells to produce more oil. In sum, the vast body of scientific studies now published on hydraulic fracturing in the peer-reviewed scientific literature confirms that the public health and climate risks from fracking are real and the range of environmental harms wide. Our examination uncovered no evidence that fracking can be practiced in a manner that does not threaten human health directly or without imperiling climate stability upon which human health depends. The rapidly expanding body of evidence compiled here is massive, troubling, and cries out for decisive action. Across a wide range of parameters, the data continue to reveal a plethora of recurring problems that cannot be sufficiently averted through regulatory frameworks. The risks and harms of fracking are inherent in its operation. The only method of mitigating its grave threats to public health and the climate is a complete and comprehensive ban on fracking. Indeed, a fracking phase-out is a requirement of any meaningful plan to prevent catastrophic climate change. COST OF RECLAIMING FRACKING SITES SUMMARY FROM RESOURCES FOR THE FUTURE STORY: <https://www.rff.org/news/press-releases/new-study-reveals-key-factors-for-estimating-costs-to-plug-abandoned-oil-and-gas-wells/#:~:text=The median cost of plugging a well without restoring the,increases costs by 20 percent. FULL STORY: https://www.rff.org/publications/journal-articles/decommissioning-orphaned-and-abandoned-oil-and-gas-wells-new-estimates-and-cost-drivers/> ORIGINAL ARTICLE: Resources for the Future full story from the American Chemical Society: <https://pubs.acs.org/doi/10.1021/acs.est.1c02234#> "We do not inherit the earth from our ancestors, we borrow it from our children." Chief Seattle

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This process must be thoughtful. Do not rush for political considerations.

## ResponseID Response

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Dear Arapahoe County Commissioners, I am writing you today to ask you to stop The construction of Sunlight Long pad in my community. Hundreds of residents live within 3,200 feet of this massive wellpad with 32 wells. And thousands live within a mile. And a 2 lane road will be built in front of this wellpad large enough for 50,000 lb semis to pass by. Now how close will this be to our homes? The Health risks, environmental risks, fire risks are overwhelming. The most outrageous fact is that there 26,000 acres to drill on. Why are our state and local governments giving Civitas a permit to drill within 3000 feet our homes?? Air quality. With 32 wells running 241 days continuously, our already poor air quality will deteriorate further with methane and other VOC's. There is not a force field that comes down at 3,000 feet. This toxic air will drift on our properties and our health will be further at risk. I have studied the traffic plan. Some days will have 40 50-70,000 semis traveling on the road in front of the wellpad. Not one resident purchased our home to look onto a massive factory right in our backyards. We are being victimized by the very people who were elected, appointed to protect us . Our property values will become so devalued . Noise. 241 days of continuous drilling. Electrification promises in 2b rules contain loopholes for Civitas . If Excel cannot provided, well then they will not electrify. Walls do not work, ask the residents of Broomfield. Fire. Thousands of acres of wild grass behind our homes with 32 high pressure pumps running continuously for a year containing hazardous fracking chemicals. Why would you put this industry so close to thousands of residents? When you have 26,000 acres to drill on?? And a fire department that is mostly volunteer at best, 20 minutes away on these new roads,. Disturbing reports of past environmental infractions and damages totaling over \$6M since 2020 by Civitas, along with misleading claims of carbon-neutral practices, cast doubt on the company's commitment to safety and responsibility. Concerns surrounding governance, operational integrity, preparedness for emergencies, and the ability to safeguard against potential disasters are largely concerning, underscoring the company's inadequate preparedness for worst-case scenarios. And the long term effects of residential fracking will not be known for years. Our country has learned all the harm done to residents by the byproducts of industries who operate close to residential communities. U. S. Steel, Dow Chemical , Dupont, and yes Fracking. The list goes on and on. Nothing about this proposed wellpad makes any sense regarding public health and safety. Most of the above issues would not be issues if fracking pads were place farther away from homes. There is so much Oil and Gas reserves in our state. There is no need to place the residents of our community in harms way. Thank you for your attention to this urgent matter. The safety and security of our community depend on your thoughtful and responsible decision-making. Sincerely, Ann & Sakhie Hussain 6900 South Yantley court, Aurora

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I urge you to consider making Arapahoe County's protections for oil and gas operations even stronger. Please see the attached document for my comments. Thank you. Barbara Dungey 11552 E 1st Ave, Aurora, CO 80010 720-253-6629 cell barbara.b.dungey@gmail.com

## ResponseID Response

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As an Arapahoe County resident, I support new oil and gas regulations; however, I have some comments for possible improvements on what is currently proposed. I believe financial assurances for each well should be much higher to deter abandonment, such as \$500,000 per well. \$95,000 is not significant for multi-billion dollar operators, even if that is what you estimate it would cost to plug the wells. You must deter as well. Next, the amount of air quality monitoring and penalties for infringement from operators needs to be outlined more clearly. The county inspection program is essential, but it should be done monthly or at the very least quarterly vs. twice per year. Setbacks for new development should be at least 3,000 feet, not 2,000 feet. There should not be a "reverse setback" loophole at all. Be consistent with the distance. This makes everything easier for the public to understand as well. Personally, I would prefer 1 mile to avoid air quality issues and home values going down. I strongly believe you should also close the loophole that allows O&G development within 1-mile of reservoirs and planned reservoirs. This loophole is dangerous and not protective of public health nor the recreation aspect that reservoirs provide. I strongly agree with the proposed prohibition of commercial injection wells - these wells have no place in the county and has been linked to very serious negative outcomes. I also believe new regulations should be proposed to more properly consider fire protection. This may include more detailed action plans, response time tests and training, and pad placement further from homes in conditions that commonly experience drought and dry conditions. In addition, there needs to be a limit on the number of wells that can be placed on one pad. Some of the proposed mega-pads proposed (for instance the State Sunlight-Long pad by Civitas in Lowry Ranch) are massive in size, with up to 32 wells proposed on one pad. It's impossible to predict the impact of this large of a site and to contain the risks of fire, air pollution and water contamination. This scale needs to be capped, perhaps at 10 wells per pad. Finally, I believe Arapahoe County should enact a policy where it refuses sponsorship contributions from O&G companies. It creates a massive conflict of interest and erodes trust with your residents. For instance, an Arapahoe County official has confirmed that the county has accepted a financial sponsorship commitment from Civitas that totals \$175,000. Your residents cannot have faith that Arapahoe County commissioners will be unbiased when considering proposed well sites when this massive conflict of interest exists within the county. It's a major problem that you need to address immediately.

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Please see attached comments from the League of Women Voters of Arapahoe and Douglas Counties.

## **Public Comments on Poster Boards at September 3, 2024 Oil & Gas Open House**

### **(252 Sticky Notes)**

#### **Regarding Proposed Changes to Reverse Setbacks**

- For plugged and abandoned wells the setback need to be 2,000 feet also. Plugged wells can leak. We have very recent examples in Colorado.
- The reverse setbacks should be 3,000 feet, not 2,000 feet, and they should account for planned communities, not just ones that came after they drill. Look at Butterfield Trails.
- Reverse setbacks should be 1,500 feet and any remediation should be paid via bond or operator fees. Not corporate bailouts.
- For the 250-foot reverse setback for plugged and abandoned wells, what kind of assurance and requirements will we have that the wells will be plugged 100% of the time.
- I've talked with several developers and they are unaware of this or its implications. Very poor notice for something this significant.
- The reverse setback requirement is effectively meaningless because most new residential construction is in the City of Aurora (or other cities). The reverse setback will not apply if the new development is not in unincorporated Arapahoe County.
- Reverse setback requirements are a good idea. But what about the gap that exists between proposed subdivisions at the time a well is approved (but not yet constructed or building permit not yet issued)? These situations should require the regular 3,000 foot setback.

#### **Regarding the Banning of Commercial Injection Wells**

- Prohibiting injection wells is a good idea. But you should also require the operator to identify where/how the wastewater will be disposed of. We don't want to simply foist this pollution across County lines to a neighbor. This should include a safety plan for transport of the wastewater.
- Arapahoe County prohibits produced water injection. Enforce prohibiting produced water injection in all Counties. Regulate recycling water on site as clean water and they should leave clean water at the end.
- What practices are in place for removing wastewater offsite to Weld County?
- Where are the licensed disposal sites?
- Where is the disposal site? Will any of the used water be recycled? If so, how?
- Where will the water go that is transported out? This seems like it will increase traffic along roads between homes and wells, only increasing emissions and dust.
- What kind of protection is there for wildlife and communities near licensed disposal sites?
- Why no water disposal? Do you want the extra water truck miles to kill us on the road? Disposal would be great.
- Will permits be obtained for all of the produced water to be disposed of before fracking begins?

### **Regarding the Requirement for an Adequate Water Supply**

- Colorado is limited in water supply. Has Arapahoe County considered long term impacts on water shortages?
- The Lowry Ranch CAP project will use billions of gallons of water. It will make water unusable in the future. Why are we doing this when we're told in the next 5-10 years we're facing a water shortage.
- Where is the water coming from? This is a semi-desert.
- What considerations have been given to reduce the use of freshwater in the fracking process?
- There is not adequate water supply now. We have water restrictions in Aurora and all over Colorado.
- There needs to be a limit on the amount of water used. Produced fracking water cannot be reused and this water therefore is permanently gone from Colorado.
- The water for fracking should not come out of our drinking water supply.
- Water use should be restricted when drought conditions exist in the area. It's not enough to buy water.
- The oil and gas agencies should be required to purchase the water at the highest watershed rate in Colorado.
- Where will the water from fracking come from? Who pays?
- Where is the water going to come from and who is paying for replacing what is removed from the communities?

### **Regarding Additional Water Quality Monitoring**

- Submitting water monitoring reports every 12 months is ridiculous when you are running an industry with hazardous chemicals and high powered pumps. Continuous monitoring is vital to our community safety. The air we breathe, the possible emissions.
- Subsequent testing of groundwater and surface water needs to be every 6 months. People could be drinking contaminated water for a year under this rule.
- Testing and monitoring should occur every 6 months.
- Require testing every 3 months.
- With residents so close to these well sites, testing should be required every 3 months to ensure water does not get contaminated.
- Quarterly testing should be required at all locations.
- Daily water testing should be required.
- Water and air monitoring sounds great. How about enforcement?
- Testing for baseline measurements needs to be done by an independent 3<sup>rd</sup> party.
- Who is doing the testing?
- I support requiring baseline sampling by an independent 3<sup>rd</sup> party.
- Why isn't an impartial 3<sup>rd</sup> party testing and sampling water?
- Require a testing and remediation plan for all water sources within 2 miles of horizontal drilling.
- Sampling should be required at the Lowry Landfill. Measure sensitive and already impacted areas for seismicity and measure for potential releases.
- Provide public access to all data.



- Water sampling data should be publicly available in near-real time to allow public monitoring and assurance of the public that water is not being affected. This should include all organic hydrocarbons, methane, and chemicals in fracking fluid.
- Wastewater – with regards to resting and sampling reports should be made available.
- Produced water operators should also report quantity received and be open to reporting for public viewing. Produced water operators should not have open air pits near neighborhoods.
- This is overkill. The ECMC has this covered. Water testing from all water zones will require the drilling of 4-5 wells per site. No one from the County understands this. Was this copied from another county?
- There should always be secondary containment. Plan B is completely necessary to insure residents are safe.
- Definitely secondary containment for parts that could leak.
- Need secondary containment for wellheads, flowlines, crude oil transfer lines, valves and fittings and instrumentation.
- The aquifers need continued monitoring after the production life of the well. Well casing can break down over time.
- We just came from Hawaii where there was a major fuel leak. By the time it was detected, 80,000 people were exposed. Once it happens, it's too late.
- Require water monitoring and contacting of landowners well beyond ½-mile (more like 2-5 miles). Will monitoring be done by a third-party/non-based company?
- Require operator to contact properties within 2 miles.
- Companies should be required to deposit money in escrow and pay fines when not in compliance.
- Will developers have to disclose the location of wells related to new developments to home buyers?
- Require notification for anyone who gets water from the reservoir.
- Minimization of adverse impacts should be last resort. If avoidance is technically feasible, it should be required.

### **Regarding Additional Air Quality Monitoring**

- How will flaring be monitored? Will residents be notified before flaring occurs?
- We already have too much air pollution. This will make it worse.
- Why add more to an already poor quality air environment?
- What is the detailed “air quality mitigation plan” given the frequency of ozone air quality days?
- What type of notification will we as the public and residents surrounding these wells have if and when an air quality alert is issued? Will we need to monitor daily on our own?
- What systems are being proposed to use?
- How will local residents and community members be notified once air quality issues rise above acceptable levels?
- Where will the public be able to access this data?
- Once areas with poor air quality are identified, what will be done?
- Can CDPHE fine them for adding to poor air quality?

- Can CDPHE shut down the wells for non-compliance with air quality? Random inspections? Need public visibility of reporting.
- What is the baseline for liveable fresh air? When is the amount of pollution threshold to stop local pollution.
- How will we be told about the bad air quality?
- Will the public be able to access the air quality reports?
- Who is responsible for monitoring? What is the baseline? Where is the data?
- How quickly can the site be shut down for exceeding ozone limits? Limits of city and county regardless of site production.
- There should be a citizen advisory group or committee set up for air monitoring to ensure transparency and trust. Fees should be collected for the air monitoring program. Ozone remediation days should mean no drilling.
- Nice hazy picture on the poster. You want to make this worse?
- Require continuous air monitoring throughout the life of the well, especially watch for fugitive emissions.
- The air quality monitoring needs to be inclusive of all ozone precursors (NOx, VOCs, for example). Also needs to include monitoring of carcinogenic substances such as benzene, diesel fuel, etc.
- County should make a list of preferred air monitoring companies. County should supplement CDPHE air program. Each active site should have 3 monitors outside the pad paid for by fees on the operator.
- Collect fees from oil and gas operators to fund monitoring and inspection by the County.
- Electrification should be required for all wells. Must have continuous air monitoring throughout life of well.
- Require electrification of all steps in the process.
- Electrify.
- How will they get electricity they promised to the new pads?
- Data from air quality monitoring should be provided to and available to the public, on a near real-time basis via public portals.
- Air quality testing is sorely remiss. Proposed rules only allow 3 years of testing for a project that will be here for over 30 years. Disconnect!
- Operators should be required to cap 1 abandoned well for each new well they drill. We can't keep adding to emissions from wells.

### **Regarding Inspections & Enforcement**

- Yes! Independent, non-biased inspections at the cost (in fees) of the operator.
- The County cannot inspect sites right now? That's crazy. You should shut down sites after two violations. \$15,000 fines are nothing for a multi-billion dollar company. Not a deterrent.
- Yes, this is a step in accountability and trust with the community. Please add spot inspections.
- The county should be able to make unannounced inspections.
- Spot inspections without notice. County has reason to believe there is risk, operator must make required records at time of inspection.

- County inspections should be random/unannounced. Fines should be increased to \$100,000/day. Shut down if failed inspection over 1 time.
- County should be able to monitor at any time.
- You won't know there is a violation until the public reports it – by the time inspectors get there, it is too late.
- How often will inspections be done? How will enforcement be done with oil and gas and how will that be done with outside companies? Who will the cost be passed on to? Will taxpayers pay for them?
- County inspections every 3-6 months should be required. Strict enforcement is critical.
- There should be quarterly inspections of all sites.
- Operators should be required to have facilities inspected every 3 months and be responsible if they fail to discover problems.
- County should make more frequent inspections. Once a month seems reasonable.
- What is the inspection schedule? Can a well be shut down immediately if deemed unsafe?
- Why would it take 3 or more violations to shut down operations? Operations should be ceased immediately if health and safety are endangered.
- Operations should cease if numerous complaints within 24 hours.
- Require all operations to cease if numerous specified complaints are received in a specified time frame.
- In emergencies, well pads absolutely must be shut down; a higher bar is the only reasonable response.
- Strengthen what a violation “threatening the environment” means.
- How quickly can a fine or other enforcement be turned around?
- Require investigation before resumption of operations after any emergency at well pad. Identify the cause of the problem and ensure that resumption of operations is safe for community residents, the environment and wildlife.
- Any detected chemical could affect my health, and will affect someone's health. That should be a violation.
- Excess light and noise are health hazards and are linked to chronic diseases. Violations of light and noise excess should be specifically included.
- Please halt any new operations in our county until we have the adequate resources (experienced staff) to properly assess impacts to nearby residents and the environment.
- 100% support allowing county to cease operations due to repeated violations
- Inspection program may have problems holding up in court. County doesn't have the money to expand staff.
- Cost of inspections/enforcement should be paid by fees as stated. But because Arapahoe County is not De-Bruced, it means the County cannot spend the fees, yet will be required to spend the money for inspections and enforcement. This will eat into money available for other County services.
- Strong enforcement requirements. Increase \$15,000 fine to larger amount. Ensure Arapahoe County can enforce state air quality regulations as state does not have enough inspectors.
- Only \$15,000 as a fine?
- 15k is not enough

- A \$15,000 fine is nothing to a billion dollar corporation. Increase fines to make them care.
- Fines of \$15k are a drop in the bucket for oil and gas producers. This should be at least \$1 Million per violation in order to see required protection for the community's health.
- Fines should be at least \$50,000 per day
- Fines should be at least \$50,000 per day
- Fines should be \$100,000/day
- Should be higher financial penalties per day/offense.
- Higher fines – so it's not just a cost of doing business for them,.
- Will violations be made public in a timely manner?
- County should contact ECMC or CDPHE during construction, site prep, fracking, finishing work, etc, to comply.

### **Regarding Financial Assurances & Insurance Requirement**

- \$95,000 is not enough. When the oil and gas companies walk away, this will cover the cost to plug wells but not the remediation of potential environmental impacts and numerous health issues on the affected nearby residents.
- Financial assurance should be in line with the average at \$150,000
- Can financial assurance be increased to the extent of federal and state bonding requirements? It should be able to be increased if it can be decreased.
- Financial assurances should be taken for sensitive sites like the Lowry Landfill if drilling near the area. Financial assurances should be paid by operators for produced water. Fire mitigation should be paid by operators since we're in fire country.
- It is not clear how the \$95,000 for plugging and abandonment of wells was determined – seems the amount should be far greater given what I understand the State has estimated to clean up existing plugged and abandoned wells which is in the hundreds of millions of dollars statewide.
- Is \$95,000 enough? Doesn't seem to be.
- \$95k is a joke. P&A costs a lot more. Who will cover the difference?
- \$95,000 per well doesn't cover it. Where is this number coming from? It should be \$200k.
- \$95,000 is not enough. The costs of plugging and abandoning will always be more. Where does the money come from then?
- \$95k is not enough.
- Financial assurances should be much more – 10x more.
- There needs to be greater amounts set aside for potential emergency cleanup.
- Where'd the \$95,000 come from? That doesn't seem significant for an oil and gas operator.
- Require escrow of \$95k and take away bond exception.
- Financial assurance should be in line at \$300k.
- There is no financial assurance high enough for this site. The reservoir, the superfund site.
- This is Double Jeopardy. ECMC already has this money. No!!
- What about financial assurance when we all get sick? When our children get sick?
- State already has this covered. This is pandering to the environmental groups. Much more thought needs to go into this prior to implementation.
- Commission states average of financial assurance is \$120k (per well minimum). Taxpayers should not have to cover financial assurances.

- Is the County permitted to pool money from all orphaned wells, or must each well be dealt with separately?
- Environmental, COI and umbrella insurance requirements should be tripled.
- Environmental liability insurance value is too low. Review clean up of other sites and the cost loss of the reservoir is catastrophic.
- The \$1 million commercial general liability insurance seems trivially low given the scope of these projects (\$1-\$2 Billion) and the potential for environmental harm. Our HOA requires a larger liability insurance and it has little/insignificant potential liability.
- \$5 million per pollution event is insufficient to cover pollution mitigation costs.
- In the event of a major industrial accident/spill, and the operator files bankruptcy, is the County or State liable for cleanup costs?
- In the event of a major disaster (oil spill) and the operator is bankrupt, who is responsible – the County or the State?
- What liabilities are going to be made for health effects to the people that get sick from the drilling?
- How will medical issues be tracked? Who will pay for additional medical treatments – asthma, cancer, etc?
- Are homeowners protected by these financial assurances? If not, they should be. \$5 million wouldn't go far if homes are damaged.

#### **General Comments Not Related to the Proposed Changes**

- ECMC and County need more time to digest all information. Moratorium, please.
- If you really want our input, include the public during the rulemaking. Stop special access by industry.
- These rules need input from residents. Staff within the County who accept rules without question is unacceptable. There is no money made for school children. They get pollution.
- All new rules should apply to pending, existing and new applications. Adverse health effects accumulate for 30 years.
- The public absolutely needs to be an equal party as the oil and gas company.
- The Planning Department of Arapahoe County, including Energy Specialist position, is not fully staffed. This has to be delayed until that is done.
- Hire staff – Energy Specialist (neutral).
- All applications need to be halted until a full Planning Dept is in place.
- This is being advanced way too fast. Slow down and do it right. Too fast leads to lawsuits.
- Who wrote these rules? No one on staff has the expertise to write or understand these rules. Copied from another county?
- Thank you for helping educate the community. It's overwhelming to think about safety risks.
- My concern is for the number of commissioners who are filling their pockets with funds provided by oil and gas. Please have the public in your concerns. We matter.
- Go frack in Kansas.
- Colorado has so much empty land. Go frack there. Please don't do it near the elementary schools.

- Fracking is killing us. Choose another form of energy close to populations. People, animals, are more important than a quick buck for the industry. Clean water/air in, clean water/air out.
- There are many people living here, many people with small children who deserve a clean environment.
- If you choose to further toxify my air and children's school yard air, you leave us no choice but to move and I want compensation.
- Hundreds of Veterans and active duty members live in our community. Is this how we treat them?
- How about building solar and wind to match?
- Why not solar panels instead of oil and gas production?
- We the people you serve should take priority over a multi-billion dollar company benefitting off of our resources.
- Applications should be done with public review so that County and public know what's proposed and people living with the effects must have a say in what's happening.
- Applications should not be approved administratively. Public hearings should be required for all applications with notification mailed to all residents.
- No administrative review. They either comply or not. There should not be some arbitrary back door to approval.
- Administrative approvals do not reflect the will of the people. Must not allow them.
- Permits should not be granted administratively. Residents in neighborhoods with wells need notice and a hearing before the BOCC.
- No more administrative approval. In emergencies, well pads must be shut down until deemed safe by county personnel, and the public must be included in approval for re-starting. If there is a malfunction or health emergency, it's too late. The damage to our health (and your health) will already be done. Stop wells Secret Stash and State Sunlight-Long.
- Amendments should not be allowed to be done administratively. This should be deleted.
- No administrative amendments for 1 mile rule on setbacks. Fires? Access?
- Require stricter noise and light regulations.
- Strict noise regulations are needed for nighttime.
- Light pollution – what happens to the numerous species of migratory birds who will be unable to navigate due to the light pollution?
- County should require seismic testing before permit approval.
- Require seismic testing. Operators should be accounted for in codes and operators required to reduce risk. Who will pay for damage to houses from seismic damage?
- In the event of a fire, Bennett/Watkins is too far away to respond. The County should establish a fire protection district funded by Civitas and oil companies.
- County should require operators to complete work within 3 years.
- All new drilling operations should be completed in 3 years.
- Arapahoe County needs more authority to disapprove pads based on public concerns including air and fire.
- Fire danger is a real problem, especially in unincorporated Arapahoe County. Bennett-Watkins is a volunteer fire department without an emergency plan. County should require a fire



protection district under Title 32 be created if a municipal fire department like Aurora does not exist and the oil drillers fund it.

- What precautions are being taken regarding the toxic waste sites on the land?
- The public, especially all residents who live in the area of wells and not well pads, should have standing to challenge oil companies' evidence before the BOCC.
- It's not safe to frack under my school.
- Why do we have to do it?
- Will the county buy the properties of homeowners who are unable to sell their homes for fair market value? Will homeowners see a decrease in property taxes as a result of falling home values due to oil and gas operations?
- Noticed that properties put on the market state on their listing hazards such as wildfire, storms, drought, etc. Will living in proximity to oil and gas drilling also be required to be included on the listing?
- Residents should be notified in writing of what will be happening and a timeline (expected timeline). Many don't know how long fracking will last, how long drilling will last and how they will be affected. What they will see and hear.
- People's health and safety before profits has been ignored. What will be done to address this decline?
- The costs should be paid by the industry, not left for the county after the operator makes their money and leaves. School children of Colorado need you to do better for them.

#### **General Comments about the Lowry Ranch CAP Applications**

- This plan is destroying our community. There is plenty of land to the east. Move the pads.
- Go east, not west towards the community of Aurora, if this project has to happen.
- Move State Sunlight-Long site further east to 8800-9000 feet from Monaghan Road.
- The residents nearest the site have made it very clear we don't want it here. Listen to us and move it east.
- Regarding State Sunlight-Long – hauling roads should be set back behind the pads, not between homes and pads. Risks of accidents/spills/dust/noise/light pollution will just be increased to residents and too close to the reservoir.
- New roads 2-4 miles east should be built.
- Haulage roads should be moved away from homes, schools and the reservoir. Consider other pathway away from residences.
- Roads and piping need to be away from homes and houses.
- Make State Sunlight-Long one mile further east from the current 3,000 foot setback from existing homes and schools.

#### **General Comments about Setbacks**

- In a world where we have technology to drill further away horizontally, it is ridiculous to drill so close to our homes. 5 miles at least.
- Setbacks should be much larger. Say, 5 miles from neighborhoods, schools and churches.
- 5 mile setback. Would you want oil and gas near your home or local schools?
- Minimum setback 5,000 feet from reservoirs, schools and homes.

- 5 mile setback from water sources and communities minimum.
- Roads carrying brine (wastewater) is radioactive – wells should be moved 5-10 miles away from homes.
- 5 mile setbacks or at least 2 miles.
- 2 miles isn't far enough away.
- Well sites should be pushed back at least 2 miles home sites. Keep people safe, schools at a distance. Why risk people over getting gas easier?
- 2-5 miles minimum setback. Civitas can go 5 miles, look at the maps.
- 2 mile setback is not even enough but better than the current regulation specified. Civitas will frack miles under our homes and schools – this can be done.
- Save your tax base – make it 2 miles.
- 2 mile setbacks.
- I agree with 2 mile setbacks.
- Push setback to 1 mile away from schools.
- Save the schools. Move it back 1 mile. That's not too much to ask.
- Setback should be 1 mile from schools. Adverse health effects on children go at least a mile.
- 1 mile from our schools.
- 1 mile setbacks from schools. What about children's health?
- 1 mile setbacks from homes. Needs to be more. There is lots of land east.
- 1 mile minimum setbacks.
- 1 mile setback from a community of thousands should be the minimum. What would make you care about us and our children?
- Any and all fracking wells must be at least 5,000 feet away from schools and houses.
- Setbacks should be 1 mile from reservoirs, and all rules seriously enforced.
- There are two elementary schools in close proximity to these pads that will be affected. Please push it back.
- Residential fracking should happen at least 1 mile away from people's homes and definitely away from schools.
- 2,000 feet is nowhere nearly enough distance between houses and schools to new and existing and abandoned wells. Wind speeds carry contaminants in the air well past 2,000 feet.
- Stricter setbacks of 1 mile or more. There continues to be new scientific data that shows 2,000 feet is not enough to protect those who live near oil and gas wells.
- Support extending setbacks and enforcing current setbacks. Why is Sunlight-Long sited less than 1 mile from the reservoir?
- Too small of a setback hurts our property values. Increase to at least 1 mile.
- Studies show huge health impacts to children within 1 mile of an oil and gas operation. 2,000 feet is not enough.
- Increase setbacks. Research has shown that fracking increases chances of cancer, especially leukemia in kids. It has been found that rates of leukemia are 7x higher if kids live within 2 miles of a fracking well.
- The location of wells needs to consider current and future land development, They need to consider potential emergencies i.e., well fire in Bennett in 2021 – the fire burned all day. A 1 mile area around the well was evacuated.

- At least 1 mile from reservoir and homes. Families live here. Children live here. Wildlife lives here.
- There are 50 peer reviewed studies that confirm the negative health effects of fracking and oil wells in close proximity of homes, mental and physical.
- No exemption for 1 mile setback from reservoirs.
- Go further back from our neighborhood.
- Setbacks are too close to our reservoir. What happened to the 2-mile setback? 1,000 feet, 2,000 feet appears to be too close to population.
- I can smell Greeley on a bad day. Will these wells be farther away than that?