

Attachment 7: Proposed Rules Stakeholder Comments Summary

Comment Provider	Proposed Phase 1 Rule Topic and Criteria	Rule Wording/Stakeholder Comments
Industry		
Colorado Oil & Gas Association (COGA)	One-mile Setback from Existing Water Reservoirs	<p>Not reasonable or necessary to protect public health, safety, welfare, or the environment and wildlife resources.</p> <p>Water Quality Control Division (“WQCD”), amended prior Rule 317B into current Rule 411 and set a conservative setback from surface water supply areas. Under Rule 411.a.(2)i. operators may not conduct any new surface disturbance within an area between 0 and 1,000 feet hydraulically upgradient from the water source. The Statement of Basis, Purpose, and Specific Statutory Authority (“SBP”) to Rule 411 explains the Commission’s finding that even “larger volume spills or releases are highly unlikely” to migrate 1,000 feet.</p> <p>Based on this finding, arrived at after extensive consideration of scientific literature and party testimony on top of consultation with the [CDPHE Water Quality Control Division] WQCD, “[t]he Commission accordingly adopted the 1,000 foot internal buffer to provide a reasonably protective margin of error to protect public health from potential spills and releases.” There is no COGCC setback for oil and gas facilities downgradient of surface waters.</p> <p>... also take issue with the language providing that the Water Reservoir Setback “may be” reduced with approval of the reservoir owner or operator. First, this gives the reservoir owner and operator too much authority. The setback should be based on hydrological science.... Second, should a variation of this language persist in future regulation drafts, there is no reason why approval should not automatically reduce the setback. This draft language states that the setback permissively “may” be reduced, but doesn’t explain under what circumstances it would not be reduced.</p> <p>The County should adopt language to clarify an upgradient setback of 1,000’—as is consistent with COGCC and WQCD findings—and allow downgradient oil and gas operations to proceed within 1,000’ where hydrologic data supports a lesser setback.</p> <p>Recommend the County adopt a 1,000 ft setback from existing water reservoirs and provide for a lesser setback where geologic features support a lesser setback, consistent with COGCC’s Rule 411 and would represent combined wisdom of the COGCC and WQCD.</p>

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	<p>One-mile Setback from Planned Reservoirs</p> <p>Relationship to State of Colorado Rules - Finding Violations under Federal and State Law</p> <p>Alternative Access Roads</p>	<p>Planned water reservoirs should not be included in the Water Reservoir Setback provision. A planned reservoir may never come into being. Or, the reservoir’s construction timeline might be such that an oil and gas operator could drill and complete wells before the reservoir is even constructed.</p> <p>Duplicative. This provision allows the County to prosecute violations of state and federal law and ... it could easily lead to duplicative and inconsistent enforcement actions. The County is the proper arbiter of its rules, whereas other state and federal agencies are the appropriate entities to determine whether there has been a violation of their respective schemes and what the outcome should be. The County lacks insight into state or federal agencies’ enforcement policies and cannot prosecute violations with the nuance expected of those laws’ seasoned experts. Foisting this responsibility on to the County runs a palpable risk that its enforcement actions will not be in keeping with the desires of the state and federal bodies in charge of overseeing the applicable laws’ enforcement.</p> <p>... the language uniquely purports to allow the County to enforce state and federal law, whereas in the many other instances where the County’s regulations refer to state and federal law, the County never purports to give itself enforcement of the same.</p> <p>Vague and ambiguous. Could lead to unnecessary surface disturbance to construct a secondary access road that is unnecessary to ensure that traffic can circulate in the event of an emergency at an oil and gas facility.</p> <p>... adopt the alternative language it has provided for Section 1-1.1.F.11.b. [Access Road Standards]. This language ... reflect[s] the intent ... which is to ensure an emergency at an oil and gas facility does not impede general traffic circulation.</p>
Civitas Resources	One-mile Setback from Existing Water Reservoirs	<p>No basis in hydrologic and technological realities. When COGCC promulgated Rule 411 they found that spills and releases are “highly unlikely” to migrate 1,000 feet from well pads, even in the case of larger volume spills or releases.</p> <p>One mile is over 5 times the state’s conservative analogous setback to protect water quality and public health.</p> <p>... fluids cannot be reasonably expected to travel that distance, especially if the oil and gas facility is downgradient of the reservoir or is otherwise isolated by topography from the reservoir. Moreover, the risk that a spill or release capable of leaving an oil and gas facility and migrating into a water source will occur has been drastically minimized over the past few years because of improved industry best management practices and heightened state</p>

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	<p>One-mile Setback from Planned Reservoirs</p> <p>Relationship to State Rules</p> <p>Alternative Access Roads</p>	<p>requirements. Relevant requirements include, among others, stringent wellbore integrity rules and heightened rules regarding secondary containment.</p> <p>Reservoir permitting and construction is a decades-long process that requires significant capital backing and approvals from numerous agencies. Applying broad setbacks from water bodies that may never be built, and whose construction may lie decades in the future after oil and gas operations are concluded if they are, is over-restrictive and does not fairly balance stakeholders' land use entitlements [i.e. mineral rights].</p> <p>The County does not have authority to enforce state or federal law. Had it the authority, the County attempting to enforce state or federal law may lead to duplicative and inconsistent enforcement actions. Also it's an outlier to other parts of the Code where the County requires applicant to comply with state and federal law.</p> <p>It's unreasonable and unnecessary to treat the oil and gas industry differently from other uses.</p> <p>Unnecessary and unreasonable surface disturbance and damage on private property. A mandatory second access road should not be regularly required. If an Operator evaluation determines that a residential building owner's access may be affected by an emergency at an oil and gas facility, then the Operator should have the ability to address this evaluation during the permitting process with County Staff and in consultation with Emergency Responders.</p>
GMT Exploration	<p>Relationship to State rules</p> <p>One-mile Existing Water Reservoir Setbacks</p> <p>Alternate emergency access</p> <p>Definition of Water</p>	<p>Recommend changing this language. This would place a large burden on the County to begin enforcing Federal and State rules. Do not believe the County has the resources, expertise or desire to.</p> <p>Read COGCC Rule 411. Adequately protects waters in Arapahoe County.</p> <p>Recommend striking the language and using the existing permitting process to work collaboratively with an operator to solve situation that may arise. [i.e. Conditions of Approval]. If the County adopts this language, it would need to be expanded to clarify several issues. The Operator may not have adequate rights to secure an alternative access. Topography and existing land use may make and another access impossible.</p>

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	Reservoir Infrastructure suggested by Water Providers (see page 10).	[Internal Note:] Not in the comments letter but Max Blair expressed a strong objection to “water wells” being included as part of the definition of reservoir infrastructure.
Renegade Oil & Gas	<p data-bbox="370 594 561 657">General comment</p> <p data-bbox="370 915 561 1188">Preliminary definition of Water Reservoir Infrastructure suggested by Water Providers</p> <p data-bbox="370 1766 561 1797">Crypto-Mining</p>	<p data-bbox="584 594 1516 695">This rulemaking is completely unnecessary, as well as Phase 2. Concerns of the County and interested parties can be addressed through Conditions of Approval attached to an individual application as necessary.</p> <p data-bbox="584 737 1484 768">Renegade generally supports the comments of other industry stakeholders.</p> <p data-bbox="584 810 1516 873">Arapahoe County, in conjunction with the State of Colorado, have regulations that are more than protective of the public interest.</p> <p data-bbox="584 915 1435 978">The attempt by the water providers to expand this definition [of water infrastructure] is a huge overreach ... wholly unfair to the stakeholders.</p> <p data-bbox="584 1199 1468 1262">... started out as a knee-jerk reaction ... near some neighborhoods and the Aurora Reservoir, has devolved into a power grab.</p> <p data-bbox="584 1304 1516 1409">... once the Civitas drilling sites are ... approved and drilling, we don't believe this situation will ever occur again as there are no more reservoirs in Arapahoe County.</p> <p data-bbox="584 1451 1516 1587">The minutiae of how bitcoin is earned is wholly irrelevant to this topic. A definition of what occurs on an oil and gas location can be as simple as, “Electric Generation for Onsite Computing. This covers cryptocurrency mining, cloud services and other remote computing operations.</p> <p data-bbox="584 1629 1516 1734">.. reeks of “nannyism”. Oil and gas drilling companies have been providing for the onsite needs of their employees for many decades. Codifying this degree of micromanagement is ridiculous.</p> <p data-bbox="584 1766 1435 1839">“Electric Generation for Onsite Computing. This covers cryptocurrency mining, cloud services and other remote computing operations.</p>

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	Handwashing Supplies	<p>A definition ... can be as simple as, “Electric Generation for Online Computing”. This covers cryptocurrency mining, cloud services and other remote computing operations.</p> <p>Oil and gas drilling companies have been providing for the onsite needs of their employees for many decades. Codifying this degree of micromanagement is ridiculous.</p> <p>[Internal Note: Not in the comment letter but Renegade expressed a strong objection to water wells being included in the definition of reservoir infrastructure and pointed out that there are hundreds of private water wells on State Land Board property.]</p>
American Petroleum Institute	<p>Neighborhood Meeting and Application Notice - Requirement to notify property owners and occupants within one mile about neighborhood meetings and filing of applications</p> <p>The County’s Authority</p> <p>Alternative Location Analysis (ALA) required for Facilities on County Owned Property (Staff note: This is an existing rule,</p>	<p>The letter contains several general comments and comments on Arapahoe County’s existing rules adopted in 2021 that are currently not proposed for revisions.</p> <p>Objected to wording that applicants are required to notify tenants of property owners. Requested alternative forms of notification outside of U.S. mail. “It may be difficult to ascertain if someone other than the homeowner occupies a property”.</p> <p>[Staff note; Other operators have notified tenants by addressing letter to “Current Resident” at the specific addresses.]</p> <p>Reminds the County that its authority is limited to surface impacts and must be both necessary and reasonable.</p> <p>Recommend the County rely on COGCC requirements for ALA to prevent unnecessary duplication or work to ensure the County’s ALA requirements align with COGCC’s requirements or work with the COGCC and operators to identify sites that are both technically feasible and minimize adverse impacts.</p>

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	<p>not newly proposed).</p> <p>Setbacks from the nearest boundary of a platted lot on properties smaller than 15 acres (Staff note: This is an existing rule, not newly proposed).</p> <p>Water Reservoir Setbacks</p> <p>Reportable Chemicals</p> <p>Incident Reporting</p>	<p>May limit the county's and operators' ability to identify feasible locations. Suggest the county rely on and participate in COGCC's process.</p> <p>We note it is inherently difficult to determine what reservoirs may be planned. ... we suggest that this provision be limited to existing reservoirs. ... seek justification for the setback distance being set at one mile.</p> <p>Seek further clarification on this provision, specifically the intent of this requirement.</p> <p>API recommends further clarification around what defines an emergency. We recommend the county define an emergency as an incident requiring immediate medical attention.</p>
<p>Bill Donovan, Petroleum Engineer</p>	<p>General comments</p>	<p>... these proposed regulations are not about safety, clean water, or clean air but an attempt to prevent access and beneficial use of property owners to their property. ... the oil and gas industry contributes as much or more to the betterment of Arapahoe County than the gaming, cannabis, and alcohol industries, which have a less stringent and [less] hostile regulatory environment.</p> <p>The proposed regulations should embrace this new paradigm instead of proposing more stringent setback requirements. Please consider setting aside 40 acres zoned for oil and gas development in the center of every five square miles. There are 805 square miles in Arapahoe County. Thirty-two, 40-acre zoned oil and gas sites would be sufficient to exploit every prospective oil and gas reservoir in Arapahoe County. That is a total of two square miles or 0.25% of Arapahoe County's surface zoned for oil and gas development. After the Marshall fire, [we] calculated that the drill pad in the center of five square miles and in the burn scar could generate as much as \$600 million in severance taxes to the local taxing districts, including the County. Of course, oil and gas is a risk industry, and tax revenue is not certain until the wells are depleted. As</p>

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	<p>Access Road Standards and Alternative Access Roads</p> <p>Handwashing Supplies</p> <p>Operation of oil and gas facilities in compliance with Federal, state and local laws and regulations</p> <p>Crypto-Mining</p> <p>Additional application information</p>	<p>the Planning Commission, you would be tasked to determine these zoned areas.</p> <p>Also, surface owners willing to be in these zoned oil and gas areas could be compensated from a percentage of proceeds. This concept is not new; Union Pacific Rail Road gave “phantom overrides” to surface owners with some conditions. I believe the stipulations were the proximity to the well pad, home ownership, and that the home was the owner’s principal residence.</p> <p>The access road standards and alternative access could be better thought out and are cost-prohibitive. It is galling that this proposal reached this level without one whit of risk analysis. Remember, a massive drilling rig that weighs hundreds of tons was moved on the access road. Also, how many Colorado drilling accidents required an alternative road, and was the alternative road built to such load requirements? Let us look to data-driven solutions. If you think you have an orphaned well problem now, try restoring land with a road built to these requirements.</p> <p>All the permanent support staff [on drilling and completion sites] are provided trailers with potable water, bathrooms, and toilets. The drilling crews and the temporary service providers use the porta-potties and have access to hand washing. The roughneck wives would raise hell if their loved ones came home with greasy and dirty hands. This is a regulation in search of a problem. A visit to a drilling rig for your staff might be in order.</p> <p>Leave for lawyers.</p> <p>Yes.</p> <p>Yes.</p>
Agencies		
ECMC (formerly COGCC)		At the time this table is being finalized, we are still waiting for a response. They intend to issue an identical letter for all local governments that are revising their rules.

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Colorado Geologic Survey	Application for a lesser setback	... concerned that this could be construed to mean that approval is mandatory, which I don't think is the intent. I think reviewed would be better here than approved.
Division of Water Resources	Additional application information	The County may also want to consider whether to also request the source of water ... as part of the application process.
CDPHE Air Quality Control Division	All of the proposed rules Crypto-Mining (AQCD Rich Coffin)	<p>We generally do not provide comments on proposed local government regulations, although we do provide assistance during development, as time permits.</p> <p>Crypto-Currency Mining (CCM) produces a list of air contaminants; some are different than flaring and venting emissions. CCM equipment is subject to the same permitting requirements for any O&G facility per AQCC Regs 3 and 7. Upstream oil and gas operators are also subject to GHG reporting and intensity targets pursuant to AQCC Reg 22.</p> <p>“APQD has not evaluated whether the emissions produced [by CCM] are less than, equal to or more than combusting. Both flares and engines produce criteria pollutants (including VOCs and NOX – ozone precursors) and hazardous air pollutants (HAPs) and these emissions should be taken into account”.</p>
CDOT	No reply	
U.S. Army Corps of Engineers	No reply	
Arapahoe County Public Health	Existing Reservoir Setbacks Reservoir Infrastructure Crypto-Mining	<p>Topography limitations, cultural resources constraints and State Land Board constraints (regarding pad locations - should be placed in previously disturbed areas) strongly limit the pad locations on State Land Board [property].</p> <p>Whoever owns the dams could agree to lesser setbacks.</p> <p>Re a water well setback: OWTS [on-site wastewater treatment systems have a setback of 100 ft between a well and a septic system. 400 – 1,000 ft might be better.</p> <p>There is Title V air permitting (considered to be a Major Source, emitting > 25 tons/year of NOx or VOCs) for data centers [i.e. CCM] using 16 cylinder engines. If the data center has to meet Title V requirements it might not be profitable.</p>

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Aurora Water	Existing Reservoirs, Planned Reservoirs and Infrastructure	<p>1-mile setback from existing and planned reservoirs.</p> <p>500-ft setback from Water Source [explain] or Critical City Infrastructure.</p> <p>Critical Infrastructure includes “all existing or planned critical public utility infrastructure, including all source water pipelines, potable waterlines (16: or greater), storm sewer pipelines (or box culverts) greater than 36”, water tanks, pump stations, lift stations and bridges.</p> <p>A setback of less than 1 mile would be considered for a well that is clearly downgradient from a water reservoir, based on site-specific data.</p> <p>Another important consideration for planned reservoirs is the state of the planning (is it a concept, has permitting been completed, has it been designated, etc.).</p> <p>Established criteria to be protective in all situations and include a variance process to consider smaller setbacks where appropriate.</p> <p>Multiple conditions should be evaluated for any O&G well siting – Hydraulic gradient (surface and subsurface) between the proposed O&G well and the water reservoir is one of the most important considerations.</p>
Rangeview Metro District (has 2 planned Reservoirs on State Land Board property)	<p>One-mile setback from existing Reservoirs or Planned Reservoirs</p> <p>Infrastructure setbacks</p>	<p>Supports: One-mile setback from existing or planned water reservoirs, unless the applicant can clearly demonstrate the facility is downgradient from the reservoir, in which case a 2,000 ft setback may apply.</p> <p>Supports: With approval from the reservoir owner or operator, the setback may be reduced to the 500-ft setback applicable to other perennial surface water bodies</p> <p>In addition to the reservoir setbacks, supports a 500-ft setback from existing and planned Water Infrastructure, defined as water wells, water storage facilities, pump stations, lift stations, treatment facilities, maintenance facilities, water fill stations, diversion structures and data communication infrastructure.</p> <p>Supports a variance process.</p>
Internal Stakeholders		

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Engineering Services Division	Access Roads Standards	Fire department standard may change- should we also add the following “and to meet the emergency response agency such as Fire Department’s minimum requirement for access roads” or similar language?
Office of Emergency Management	Emergency Response Plan (EAP)	<p>No comments on Relationship to State of Colorado Rules, Neighborhood Meetings, Applications that Include a Lesser Setback, Reservoir Setbacks, Handwashing Facilities and Access Road Standard.</p> <p>Regarding Post-Incident Meeting: This appears to be a duplicate requirement</p> <p>Regarding Crypto-Mining: Are these powered by grid or are there large banks of Lion or LiPo type batteries that would provide power if the grid were disconnected? If so, it should be posted so fire [department] is aware.</p>
Transportation	No Reply	
Open Spaces		<p>For Open Spaces the increased setback from reservoirs sounds good. Question – I see it says “Planned Reservoir” – how planned does it have to be? I know PureCycle [Rangeview Metro District] has some planned-on Lowry property but not sure if how far along they are?</p> <p>The lesser setback BoCC approval is also a good addition.</p>
Citizen Stakeholders		
John Granger Aurora Resident	California Public Health Rulemaking	<p>2. What are the air pollutants released from these activities that cause negative health outcomes? How do we know exposure to these is likely from oil and gas extraction wells and associated facilities, as opposed to other sources?</p> <p>The wells, valves, tanks and other equipment used to produce, store, process and transport petroleum products at both unconventional and conventional OGD sites are associated with emissions of toxic air contaminants, hazardous air pollutants and other health-damaging non-methane VOCs (Helmig, 2020; Moore et al., 2014). Diesel engines used to power on-site equipment and trucks at unconventional and conventional OGD sites directly emit health damaging hazardous air pollutants, fine particulate matter (PM2.5), nitrogen oxides and volatile organic compounds (VOCs) (CalEPA OEHHA, 2001). Many VOCs and nitrogen oxides are precursors to ground level ozone (O3) formation, another known health harming pollutant. [Emphasis in original] Hazardous air pollutants that are known to be emitted from OGD sites include benzene, toluene, ethylbenzene, xylenes, hexane and formaldehyde--many of which are known, probable or possible carcinogens and/or teratogens and which have other adverse effects for non-cancer health outcomes (CalEPA OEHHA, 2008, 2009; Moore et al., 2014)...</p> <p>A recently published study using statewide air quality monitoring data from California investigated whether drilling new wells or increasing production volume at active wells resulted in emissions of PM2.5, nitrogen dioxide (NO2),</p>

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		<p>VOCs, or O3 (Gonzalez et al., 2021). To assess the effect of oil and gas activities on concentrations of air pollutants, the authors used daily variation in wind direction as an instrumental variable and used fixed effects regression to control temporal factors and time-invariant geographic factors. The authors documented higher concentrations of PM2.5, NO2, VOCs, and O3 at air quality monitoring sites within 4 km of preproduction OGD well sites (i.e., wells that were between spudding and completion) and 2 km of production OGD well sites, after adjusting for geographic, meteorological, seasonal, and time trending factors. [Emphasis Supplied.]</p> <p>[Responses from the California Oil and Gas Public Health Rulemaking Scientific Advisory Panel to the written questions sent by the California Geologic Energy Management Division (CalGEM) on August 31, 2021. pp. 10-11]</p>
<p>John Granger Aurora Resident</p>	<p>Reservoir Setbacks [Staff note: Please see Mr. Granger’s complete statements in the attached letters.]</p>	<p>Commissioners, Staff, and County Attorney: This letter is written on behalf not only of me, as a concerned citizen and former land use/environmental attorney, but also on behalf of the 30,000 concerned citizens of Ward VI who speak through the non-profit Save-The-Aurora-Reservoir (STAR). This letter will deal with the language of the proposed Reservoir Setback only. The second letter will deal with critical missing regulatory changes that need to be dealt with in Phase I rather than Phase II of the regulatory amendment process.</p> <p>Breach of the Duty to Regulate: SB-19-181, signed in 2019, completely dispelled that notion, and put the emphasis back fully on “protection” not balancing development and protection. As stated in the Legislative Summary of the authorizing legislation for the COGCC, SB-19-181: Section 6 states that the public interest is to “regulate” oil and gas development to “protect” those values. [Emphasis supplied] The County of Arapahoe has an express duty to be a steward of the Public Trust and must “carry out their duties for the benefit of the people of Arapahoe County.” [Arapahoe County Code of Ethics, Art. III.1] Therefore, it is inappropriate to compromise the protection of health, safety, welfare, or environmental protection.... I make this observation because of the two proposed “carve outs” in subsections i. and ii. of the Proposed Setback. These “carve outs” are convoluted and completely emasculate the one (1) mile setback proposed.¹ They are vague and ambiguous in wording. And subsection ii. is likely illegal in application. They appear to be an obvious effort to cater to CAP applicants</p>

¹ It is noteworthy that the City of Aurora’s one (1) mile reservoir setback [Aurora City Code Chap. 135, 4.c.], upon which these provisions are based, contains no such “carve-outs” and remains a clean one (1) mile setback.

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		<p>who believe they can work out a “compromise” in moving certain well pads in exchange for an agreement not to move others.</p> <p>Subsection ii. of the proposed Setback is also inconsistent with statutory duty and must be wholly abandoned for a second reason. It attempts to delegate rather than regulate.</p> <p>This means that either a reservoir owner or an operator, neither of which needs to be a public entity charged with the public trust duties of the County, can on their own initiative, without regard to public health and safety considerations, approve collapse of the setback from one (1) mile to 500 ft. -- an over 90% difference. This is an attempt at delegation rather than regulation and is manifestly improper because it violates the statutes cited above.</p> <p>Vague and Ambiguous Language:</p> <p>The “carve-out” Section i. of the Proposed Setback is so vaguely and ambiguously worded as to be unenforceable. It purports to allow the collapse of the one (1) mile reservoir setback to 2,000 ft. if the Oil and Gas Facility is “downgradient” from the reservoir. It reads:</p> <p style="padding-left: 40px;">i. At least one (1) mile from existing or proposed reservoirs, unless the applicant can demonstrate that the Oil and Gas Facility is downgradient from the reservoir, in which case a 2,000 ft. setback may apply.</p> <p>Does it mean it that approval remains discretionary with the County or is it a substitute for the word “shall”? The carve-out, if it is to be applied at all, needs to be clear and unambiguously protective.</p> <p>Furthermore, berms and gradients alone are insufficient barriers upon which to rely for health and safety protection.</p> <p>The Solutions:</p> <p>For these reasons, the County is urged first to simply consider total elimination of the “carve-out” wording with a return to a simple-straight forward one (1) mile reservoir setback identical to the City of Aurora. That is clearly the most protective and best approach which places public health and safety as the appropriate goal.</p> <p>Absent that approach, if the County insists upon a carve- out based upon topography, we strenuously urge the County to:</p> <ol style="list-style-type: none"> 1. Recognize that, because of both the unreliability of berms and the need to consider air borne pollutants, the distance of the carve-out Setback for section i. must be increased to a distance that recognizes potential sources of reservoir contamination beyond simply well pad spills. We have not suggested what figure that distance should be

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		<p>because we disfavor this approach and believe a clean one (1) mile setback is the proper approach. We note, however, that maintaining just a 2,000 ft. setback is inconsistent with the announced goal of developing the “best oil and gas regulations in Colorado.”</p> <p>2. Use a version of the County’s relief from setbacks approach already found in subsection 2.b.iii. and follow the Use by Special Review process under which the Operator must establish that the lesser setback “will provide substantially equivalent protection...and...will not adversely impact public health, safety, or welfare or the environment.”</p> <p>Summary Conclusion: In summary, the Proposed language, due to the two “carve outs” being included, is fatally flawed. STAR on behalf of the citizens of Ward VI and I therefore implore you to;</p> <ul style="list-style-type: none"> • First, do away with the improper and likely illegal delegation rather than regulation found in sub-paragraph ii. • Show the courage of your convictions and drop the carve-out in section i. altogether, keeping only the one (1) mile setback language. <p>EXHIBIT 2 PROPOSED SUBSTITUTE RESERVOIR SETBACK LANGUAGE</p> <p>ALTERNATIVE ONE: d. Water Reservoir Setbacks: All Oil and Gas Facilities shall be located at least one (1) mile away from all existing or planned (adjudicated) reservoirs.</p> <p>ALTERNATIVE TWO: [Note: Items in red indicate new or revised language outside of the existing language in subsection 2.b.iii.] d. Water Reservoir Setbacks: All Oil and Gas Facilities shall be located: i. At least one (1) mile away from all existing or planned (adjudicated) reservoirs. ii. The 1 mile setback may be reduced to a lesser setback only under the circumstances described below: [Note: the language from this point to the end is drawn directly from the existing regulations for “occupied dwellings and ‘platted lots” setbacks.] (a) If an Oil and Gas Facility application that includes a lesser setback is submitted, it must be approved by the Board of County Commissioners through the Use by Special Review process provided in Section 5-3.4 of the Land Development Code. For approval of any lesser setback under this subparagraph, the Operator must establish that the lesser setback as provided will provide substantially equivalent protection to a one (1) mile setback and that the granting of the lesser setback will not adversely impact public health, safety, or welfare or the environment.</p>

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		<p>(b) In reviewing the proposed lesser setback, the Board of County Commissioners shall consider the extent to which the operator provides an alternative Oil and Gas Facility design, best management practices, control technologies, or proposes conditions of approval that will be effective to avoid, minimize, or mitigate adverse impacts on the affected properties, considering:</p> <ul style="list-style-type: none"> (1) geology, technology, and natural or added features (such as gradients and berms), hazards, or topography; (2) the location and use of occupied structures and areas zoned residential and the proximity to thereto (3) potential leaks from well pad equipment, including but not limited to associated flowlines, tank batteries, spill containment areas, or similar equipment; (4) potential contamination from airborne pollutant chemicals emitted from the Facility; (5) the anticipated size, duration, and intensity of all phases of the proposed oil and gas operations at the proposed oil and gas location. <p>iii. However, in no case may the one (1) mile setback from Reservoirs be reduced below ___2 feet.</p>
<p>John Granger Aurora Resident</p>	<p>Setbacks [Staff Note: Mr. Granger has proposed alternative language for the existing setback rules and the Wildland Urban Interface. These will be discussed for future amendments. Please see his complete statements in</p>	<p>Re: Proposed Arapahoe County Oil and Gas Facilities Regulation Amendments and Additions</p> <p>Commissioners, Staff, and County Attorney:</p> <p>This letter now deals with both an existing setback that requires modification and a critical new missing regulation to protect against fire risk. Because the non-profit Save-The-Aurora-Reservoir (STAR), on behalf of the 30,000 citizens of Ward VI, and I fully agree on the content of this second letter, I am sending it on its behalf as well as my own. Both of these changes are important enough to require implementation now in Phase 1 (rather than later in Phase 2) of the regulatory amendment process.</p> <p>In conclusion, we urge the County to do the following:</p> <ol style="list-style-type: none"> 1. Eliminate the references to “platted lots” in their setback regulations and instead reference “areas zoned residential”; 2. Establish a setback distance from both “occupied structures” and “areas zoned residential” of one (1) mile (consistent with drinking

² A reasonable figure should be inserted here by the County but given the goal of developing the “best oil and gas regulations in Colorado” it should remain well above a 2,000 ft. distance.

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	the attached letters.]	<p>water reservoir protection and current national pollution dispersal studies);</p> <ol style="list-style-type: none"> 3. Adopt language allowing reduction of this one (1) mile setback to some reasonable distance (greater than a minimum of 2,500 ft. used in Boulder) only through the Use by Special Review process upon a showing the “lesser setback will not adversely impact public health, safety or welfare or the environment”; 4. Eliminate provisions that allow further setback distance reductions based upon owner consent agreements as delegations inconsistent with the County’s duty to regulate to “protect the public health, safety, and welfare, and the environment”; and 5. Add a specific protection provision dealing with those Wildland Urban Interface areas designated by OEM to have a “significant risk” of fire spread. <p>Exhibits A and B to this letter contain the necessary language to meet these important goals, and we urge the County to adopt them now.</p> <p>Diane, Jason and Bryan:</p> <p>Enclosed please find my proposed amendments to your latest draft of the Oil and Gas Regulations following the Open House.</p> <p>These are my own suggested amendments (not STARs) since they vary somewhat from the earlier stated position on behalf of STAR;</p> <p>They use your existing draft regulations and show my suggested changes and edits;</p> <p>They apply the same test to reducing water reservoir setbacks as used for occupied dwellings, that is a "substantial equivalency" test rather than a "downgradient test" or "agreement of owners/operators" test.</p> <p>They apply setbacks to areas zoned residential rather than platted lots.</p> <p>They use appropriate setback distances which meet the Commissioner's objective of "creating the best regulations in the state of Colorado" and recognize the impact of the latest national studies on protection of public health and safety, but without going overboard and risking industry litigation.</p>

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		<p>Thanks for your consideration of these amendments and edits.</p> <p>Setbacks</p> <p>a. All Oil and Gas Facilities shall be located at least:</p> <ul style="list-style-type: none"> i. 3,000 feet from any occupied structure as measured from the pad boundary. ii. 3,000 feet from the nearest boundary any area zoned residential as measured from the pad boundary. iii. 500 feet from any adjacent property’s boundary line as measured from the pad boundary. iv. 250 feet from public rights-of-way as measured from the pad boundary. v. 3,000 feet from a Designated Outside Activity Area as measured from the pad boundary. vi. 5,000 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, the ordinary high water mark of any perennial or intermittent stream or the edge of any riparian area, whichever is the greatest distance, as measured from the pad boundary, unless CPW has waived or modified the setback from the stream, surface water, or the riparian area following in accordance with COGCC Rules 309 and 1202. viii. Water Reservoir Setbacks: All Oil and Gas Facilities shall be located: <ul style="list-style-type: none"> (1) At least 5,000 feet from existing or planned and adjudicated water reservoirs, over 100 acre feet in size or used for drinking water storage. ix. All access roads shall be at least 500 feet from a residential or non-residential property line, excluding light or heavy industrially zoned properties. <p>b. The 3,000 and 5,000 feet setbacks from occupied structures, Designated Outside Activity Areas, areas zoned residential, or water reservoirs referenced in subparagraphs 5-3.6.F.2.a.i, ii, v and viii above may be reduced to a lesser setback:</p> <p>c. Reverse Setbacks: No new occupied structure shall be constructed less than:</p> <ul style="list-style-type: none"> i. 500 feet from and existing Oil and Gas well of any status (permitted but not drilled yet, drilling, completing, producing, active gas storage, injecting, shut-in, temporarily abandoned, dry and abandoned, or plugged and abandoned prior to 2014). ii. 300 feet from a plugged and abandoned oil and gas well or remaining equipment that was plugged and abandoned from 2014 onward.

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Marsha Kamin Aurora resident	Reservoir Setbacks Notifications Fire Risk [Not included in the proposed amendment. Will be a topic of discussion for future amendments.]	Should apply to all occupied structures, schools and future housing sites. CA air quality study supports larger setbacks. Notifications should be for everyone within 1 mile of the extent of the horizontal wellbore. Extreme fire risks due to typically windy conditions.
Kristen Miller Aurora Resident		<ul style="list-style-type: none"> • Especially considering the density of our housing within 2,000 feet of the proposed oil and gas development, the draft regulations have definitive loopholes for less than 2,000 foot setbacks, and this needs to be amended (in 2a): <ul style="list-style-type: none"> ○ If the owner(s) of the occupied structure(s) or all owners of the affected platted lots agree in writing to a lesser setback and the fire district agrees to provide service to the Oil and Gas Facility; however, even with owner consent, in no case may the setback be reduced below 500 feet ○ 2C: No new occupied structure shall be constructed less than 250 feet from an existing Oil and Gas well of any status (permitted but not drilled yet, drilling, completing, producing, active gas storage, injecting, shut-in, temporarily abandoned, dry and abandoned, or plugged and abandoned prior to 2014). ○ 2C: Reverse Setbacks: No new occupied structure shall be constructed less than 150 feet from a plugged and abandoned oil and gas well or remaining equipment that was plugged and abandoned from 2014 onward. ○ 2d: Water Reservoir Setbacks has too many loopholes “All Oil and Gas Facilities shall be located: At least one mile from existing or planned water reservoirs, unless the applicant can demonstrate that the Oil and Gas Facility is downgradient from the reservoir, in which case a 2,000 foot setback may apply. With approval from the reservoir owner or operator, the setback may be reduced to the 500-foot setback applicable to other perennial surface water bodies.” • Visual mitigation requirements only allow for required visual mitigation for those “Well pads within 1,320 feet of a property line of a property containing an occupied structure, a platted lot, or a parcel of 40 acres or smaller”—because our current stance is 2,000 feet, this regulation doesn’t hold the operator

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		<p>responsible for hiding the well pads. And the operator has a year to install visual mitigation—far too long!</p> <ul style="list-style-type: none"> • Traffic mitigation (16a): “shall make best efforts to schedule its traffic to limit heavy truck traffic on County roads during peak commuting hours and during school bus hours”—why is the County not prohibiting this, rather than asking for best efforts? For many neighbors commuting along this route to toward DIA/Buckley, this will definitely affect our commute pattern with additional traffic and damage to our roadways from heavy trucks. • Groundwater Baseline Sampling and Monitoring (9) is limited to within a ½ mile radius and depends upon a request from the owner of such water source or owner of land upon which such water source is located. And the “requirement to test a well upon request does not apply if the water well has already been tested by any Operator and the Operator is able to furnish such results to County”—these regulations do not protect our water. • Noise Mitigation Requirements: Section 10 defines the maximum permissible noise level and then proceeds to allow loopholes around it. This needs to be tightened significantly. <ul style="list-style-type: none"> ○ “Noise emitted from the facility pad shall not exceed 60 dBA or 65dBC, measured at the nearest property line of the property with the nearest occupied structure. These noise levels, as measured, constitute the Maximum Permissible Limit of noise that may be allowed to emanate off site from the Oil and Gas Facility.” Per Centers for Disease Control and Prention, “Loud Noise Can Cause Hearing Loss,” November 8, 2022, (https://www.cdc.gov/nceh/hearing_loss/what_noises_cause_hearing_loss.html) 60 decibels is comparable to the sounds of normal conversation, air conditioner. Increasing to 70 decibels contributes to annoyance by the noise, and these regulations allow this level for up to an hour per day between 7 a.m. to 7 p.m.: ○ (10b): During the hours between 7:00 AM and 7:00 PM, the maximum permissible noise levels may be increased 10 dB(A) for a period not to exceed 15 minutes in any 1-hour period. The increase is permissible ... for a 1-hour period during any 12 hours. Why would the County allow for this level? • Furthermore, 10c allows for applications for waivers (“to exceed the Maximum Permissible Limit in accordance with and subject to the standards in Section 5-6-3.6.E.5 above where the Oil and Gas Facility is proposed to be located in an area with existing ambient background noise levels that are at or above the Maximum Permissible Limit or if proposed for an area that is sufficiently remote from any property with an occupied structure or any High Priority Habitat, provided that the lack of High Priority Habitat is supported by recommendation of CPW”) without defining what sufficiently remote is.

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		<p>When I reviewed the draft regulations, I saw nothing in them to protect or measure air quality as a result of the proposed oil and gas operations. That appears to be missing entirely.</p>
<p>Robert Graham Aurora Resident</p>		<p>I would hope and expect that you have provided a detailed copy of the Denver Post Article that covers this Oil and Gas Leak and the impact the leak has to families - the key is the time to restitution:</p> <p>"Mark and Julie Nygren didn't set out to be activists, but they are suggesting changes to the oversight of Colorado's oil and gas pipelines based on their experience of losing their home and seeing part of their farm contaminated by a leaking gas line.</p> <p>More than four years after discovery of the leak, the Nygrens are still renting a house in Johnstown, just north of their Weld County property, and remain embroiled in a lawsuit against DCP Midstream Operating Co., which owned the pipeline. As the Colorado Public Utilities Commission considers new pipeline-safety rules, the Nygrens want to share their hard-won insights with regulators.</p>
<p>Seema Rajapurohit Aurora Resident</p>		<p>We bought this beautiful, big dream house just opposite the Aurora Reservoir with the intention to enjoy the nice Lake and the peaceful residential neighborhood.</p> <p>Unfortunately, that is not the case as Civitas is planning to frack near this reservoir and we totally oppose this. The entire neighborhood and area will be smelling of horrible chemicals, the beauty of the reservoir will be lost, and people will get sick with all kinds of cancer, dental problems, skin diseases etc. Moreover, The water will no longer be clean, fresh, and potable. Also, the oil and gas wells will catch fire and burn the entire area (grasslands) and also people's homes. We don't want our dream home to be burned down. We don't want any fracking and oil and gas wells anywhere near us nor the Aurora Reservoir. This proposed fracking project is life-threatening, which is why we are fully against this project. Please make it a rule that any fracking and oil and gas should be 50 miles away from the Aurora Reservoir area. Please stop this project now.</p>
<p>Tisha Foard Aurora Resident</p>		<p>I am writing to you as a concerned citizen and mother. I stand in opposition to any and all fracking within Arapahoe County, especially any located near communities with children, like the proposed Lowry CAP by Civitas. Please consider sticking to a MINIMUM of a mile setback from all rivers, reservoirs, and homes, or better yet, stop the project all together. Here's why:</p> <p>Air Quality/Pollution The EPA has reclassified Colorado's Front range non-attainment as a "severe" violator of federal air quality standards. In 2021 there were 65 ozone action</p>

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		<p>days from May 31 to Aug 31, the highest number recorded since recording started in 2011. The fracking proposed at the Lowry Ranch CAP will produce volatile organic compound (VOC) emissions which form ozone. This can cause lung damage and premature death. The common air pollutants from drilling and fracking chemicals are linked to higher rates of cancers, childhood leukemia, sperm abnormalities, reduced fetal growth, cardiovascular disease, and respiratory dysfunction. (Colorado Fiscal Institute 2023). In light of this, it is little wonder that the Center for Biological Diversity has sued the EPA for its approval of Colorado’s State Implementation Plan for air pollution emissions.</p> <p>Additionally (and more importantly for my particular family), the National Library of Medicine has published a study that finds “a significant association between CO concentrations and epileptic seizure risk . . . with an increased seizure risk of 4%” (Zhuying et al. 2022). My nine year old son has epilepsy. Exposing him to such concentrations of air pollution as will be generated by this project is not just unfair. It’s unconscionable. My son is certainly not the only child living with epilepsy near this proposed site. In fact, one of the drill pads planned will be less than a mile away from my son’s elementary school, exposing ALL of the children at Altitude Elementary AND Woodlands Elementary to unsafe levels of air pollution.</p> <p>Water</p> <p>Colorado is currently a part of a superdrought located in all of the western United States. The EPA estimates that the annual water requirement for horizontal wells is as high as 140 billion gallons of water per year. With the current watering restrictions (2 times/week) for Aurora residents, this seems needlessly wasteful.</p> <p>The Lowry Cap cumulative impacts statement itself states that it intends to use 17,858,400 gallons of water PER WELL, and that the water will come from three sources: 1. “excess surface water” 2. Farmers Reservoir Irrigation Company and 3. Rangeview Metropolitan District water. What excess surface water do we possibly have? Rangeview services the Lowry Range, which is where the Aurora Reservoir is located. This reservoir is currently only at 54% of its capacity (auroragov.org 2023). Drilling so close to the reservoir that serves such a large portion of the Aurora population is untenable.</p> <p>Cancer</p> <p>A peer-reviewed Yale study published in August 2022 found that living within one mile of fracking made small children aged two to seven years 2-3 TIMES more likely to develop leukemia than children not living near wells (Yale News 2022). How can we possibly justify allowing wells to be located so near to five Cherry Creek Schools, my school of employment and my son’s elementary school included? In what world is it acceptable to cause such risk to the lives of thousands of children for the monetary gain of an oil and gas conglomerate that will not return any of that profit to our community?</p>

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		<p>Impacts on Families</p> <p>On a personal level, my son has epilepsy. This causes him to be especially susceptible to loud noises and stress. A peer-reviewed study published in both the journal Science of the Total Environment and Berkeley News found that “Fracking creates noise at levels high enough to harm the health of people living nearby” (Isreal 2017). Stressful situations and loud, continuous noises have proven to cause seizures that occur more often and with greater intensity in my son. It has been heartbreaking to watch his struggles, and it continues to be heartbreaking to consider the future noise, stress, and pollution from these proposed wells and the effect they will have on my son. My husband and I provide for our family with modest Department of Defense and public school teacher incomes. We cannot afford to move with the housing market and interest rates the way that they are right now. This situation has caused us severe anxiety and emotional distress that we, of course, must hide from our son so as to not adversely impact his health and neuro activity. We have no other way to protect our only child than to appeal to government entities like you.</p> <p>What is happening to our community is simply put, evil. A large, powerful corporation can come to our idyllic community, use predatory and dishonest tactics to gain mineral rights, hurt our children, use up our precious natural resources, and destroy the environment and wildlife in the area simply because they want more than their already record profits from the last few years. This is just ONE story of how an individual family will be impacted. Can you imagine the impacts on the thousands of other residents near these wells?</p> <p>Please, we are begging you to help us. Stick to the MINIMUM of a mile setback from all homes, reservoirs, rivers and streams. Better, stand in opposition to any and all fracking in our area. It is the right thing to do. Please put the children and elderly of Arapahoe County before monetary gain. Thank you so much for your time.</p>
<p>Hundreds of Aurora Residents [Same message]</p>		<p>Dear Arapahoe County Commissioners and Staff,</p> <p>Thank you for working to strengthen the County’s oil and gas regulations to be in greater alignment with its required duty to protect the public health, safety, welfare, and the environment.</p> <p>I believe the proposed changes to the regulations are not sufficiently protective. I urge the County to make the following changes to strengthen them:</p> <ol style="list-style-type: none"> 1. Add a provision that will not allow oil and gas permits to be permitted in areas that are in violation of federal air quality standards; such areas are already burdened by the effects of poor air quality.

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		<p>2. Establish a setback distance of at least one mile from both occupied structures and residential areas/zones. This is the same setback distance being proposed for reservoirs; protections for the safety of residents should be at least on par with protections for drinking water reservoir safety.</p> <p>3. Eliminate provisions allowing setback distances to be reduced to 500 feet by owner consent agreements. Such provisions simply allow oil and gas applicants to negotiate with developers to reduce setback distances- irrespective of the safety and health impacts to the general public.</p> <p>4. Develop regulations to prevent fires in wildlands adjacent to residential and urban areas. This can be accomplished by authorizing the Office of Emergency Management to identify portions of such wildlands which pose risks of fire spread, and by disallowing oil and gas facilities from being located within them.</p> <p>5. Disallow oil and gas companies from being able to request exemption from conducting neighborhood meetings with residents living within one mile of their proposed plan. Companies must engage with and solicit input from residents most impacted by oil and gas development plans.</p> <p>6. Explicitly prohibit the practice of flaring gas to produce cryptocurrency. Cryptomining is energy intensive, and it produces large amounts of electronic waste, which present environmental risks to air and water. The pollution from this industry will remain local, but jobs and benefits to communities are slim as all work is virtual.</p> <p>Please consider these revisions that will result in greater protections for our health, safety, and natural world.</p>
Save the Aurora Reservoir Group (STAR)		<p>The 3 most important missing setbacks/regulations in order of importance are:</p> <ol style="list-style-type: none"> 1. Effective setbacks from areas zoned residential/urban <ol style="list-style-type: none"> a. The County has been operating under the mistaken belief based upon a single State CDPHE study that air dispersal of pollutants is limited to a 2,000 ft. radius. This is based on monitoring of a single well [not a 12 well pad]. The County therefore relies now on a 2,000 ft. setback. b. Nationally accepted studies now show that even without wind drift the area of dispersal is actually 1.25 -2.5 miles c. We therefore suggest at least a minimum 1 to 1.5 mile setback from residential/urban areas (including schools and other public gathering spots), particularly when you are dealing with a multiple well pad site. 2. Fire setbacks and regulations in the Wildlife Urban Interface <ol style="list-style-type: none"> a. The Marshall fire proved how dangerous fires starting in grasslands

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		<p>adjacent to residential neighborhoods can be.</p> <p>b. The key to fire safety is time to suppress, coupled with resources to suppress</p> <p>1. A 2,000 ft. setback leaves totally insufficient time to suppress – less than 8 minutes in a grassland fire pushed by a 25 mph wind. Even 1 mile is problematic with 18 minutes to suppress but far better when coupled with regulations such as fire hose hook-ups and suppressive foam required on well pads in the WUI.</p> <p>c. We therefore suggest a WUI fire setback of at least 1 mile, coupled with fire hose hook –ups and suppressive foam on any well pads adjacent to the WUI. . [See for example: Broomfield Oil and Gas Code Regs. 17-54-060(T)(8) and (11)]</p> <p>3. Setbacks from drinking water reservoirs</p> <p>a. County has 500 ft. City of Aurora has 1 mile.</p> <p>b. Even with berms or up-slopes to protect against spills entering these reservoirs, the same zone of protection of 1 to 1.5 miles for air pollutant dispersal is needed as is the case for residential /urban neighborhoods.</p> <p>B. Other level 2 tier regulations of particular concern (in no particular order of priority) include:</p> <p>1. Flowline, gathering line, and transfer line regulation:</p> <p>a. A detailed plan of the location of gathering lines, on- and off-location flowlines and crude oil transfer lines should be required.</p> <p>b. Flowline should be defined as all categories of “flowlines” included in the definition of the COGCC rules (including wellhead lines, production lines, dump lines, manifold piping and process piping).</p> <p>c. All flowlines, gathering lines, and transfer lines located within ¼ mile of “ecologically sensitive areas” [such as drinking water resources and sensitive grasslands and wildlife habitats] or residentially/urban zoned neighborhoods should comply with the 2006 Pipeline & Hazardous Material Safety Administration PHMSA regulations as amended.</p> <p>d. Because flowlines are prone to methane leakage, and according to the EPA are “one of the largest sources of emissions” in the oil and gas industry:</p> <p>1. Flowlines, gathering lines and transfer lines should be setback a minimum of 1,000 ft. from drinking water sources, riparian waterways, and residential/urban neighborhoods; and</p> <p>2. Should be monitored for airborne leakage leaks and spills at least every 3 months and, when located in “ecologically sensitive areas” or ¼ mile of residentially zoned areas , at least twice monthly.</p>

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		<p>d. Construction of flowlines should be required to comply with appropriate ASME B31.4 and B31.8 standards, as amended</p> <ol style="list-style-type: none"> 1. Applicants should be required to provide appropriate clearances between flowlines needed for appropriate inspections and hydro testing of flowlines and associated isolation valves. 2. Off-location flowlines, Crude Oil Transfer Lines (COTL) and Produced Water Transfer Systems (PWTS): <ol style="list-style-type: none"> a. Operators are now required in Form 44 to register and provide as-built information to the COGCC of these lines for the purposes of emergency management and planning. Accordingly, this geo-database information should be required to also be provided to the County so that first responders have the necessary information to address potential emergencies. b. Setbacks of COTL and PWTS lines and systems from residential, commercial, or industrial buildings, places of public assembly, any surface water body, or sensitive environmental feature should be determined on a case-by-case basis based upon the consideration of the size and type of line and the features of the proposed siting. [See for example: Broomfield Oil and Gas Code Regs. 17-54-060(Q)(1) thru (3)] 3. Surface and groundwater pollution: <ol style="list-style-type: none"> a. In order to minimize adverse impacts to surface and sub-surface water bodies, use of chemicals dangerous to human health should be prohibited, including: <ol style="list-style-type: none"> i. All chemicals listed in COGCC Table 437-1; ii. Polysorbate 80; and iii. Perfluoroalkyl and polyfluoroalkyl substances or “PFAS chemicals” defined as a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom. 4. Water source quality, sampling and testing: <ol style="list-style-type: none"> a. Applicants should be required to sample one up-grade and two downgrade available surface and ground water sources located within a radius of one-half mile of a well pad or facility. If no such water sources are available, samples should be collected within one-mile. c. Water source testing should be conducted by a qualified independent professional consultant approved by the County at the operator’s expense, and include: <ol style="list-style-type: none"> i. Major ions, including: bromide, fluoride, sulfate and nitrate; ii. Metals, including: arsenic, barium, boron, chromium, copper, iron, lead, manganese, selenium, strontium; and

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		<p>iii. Dissolved gases and VOCs, including methane, ethane, propane, BTEX as Benzene, Toluene, Ethylbenzene, Xylenes, and Total Petroleum Hydrocarbons (TPH)</p> <p>1. Should a water source test show a concentration increase of methane or other dissolved gas concentration increases of greater than three (3) mg/l (micrograms per liter) between sampling periods or any presence of a listed VOC, BTEX or TPH, immediate notification of both the COGCC and County so that the source can be identified and remedial action taken. [See for example: Broomfield Oil and Gas Code Regs. 17-54-060(T)(1) a. thru n.]</p> <p>5. Air quality, sampling and testing:</p> <p>a. Air emissions from proposed facilities should be required to comply with all federal air quality rules and standards, including EPA’s New Source Performance Standards and National Emission Standards for Hazardous Pollutants;</p> <p>i. Air emissions from proposed facilities should be required to comply with all COGCC and CDPHE air quality standards and rules, and any and all County emission regulations.</p> <p>ii. Emissions should be required to be below the currently most protective health-based guidelines, including those used by EPA and CDPHE.</p> <p>iii. Carbon-reduction requirements of Arapahoe County should not be allowed to be offset by purchased credits.</p> <p>iv. An Air Quality Control Plan should be required that requires that the Operator use both most effective management techniques and best management practices to minimize impacts to air quality. This should include the use of electric versus gas powered generators.</p> <p>v. A County approved air monitoring plan to be conducted by a qualified third-party consultant, approved by the County should be required. Baseline monitoring should be required within a 500 ft. radius of all well pads and 2,000 ft. of any well pad located within 2 miles of residentially/urban zoned property, a school, public gathering place or a drinking water source.</p> <p>vi. The air quality monitoring plan should require constant monitoring both prior to construction, and during all phases of development including drilling and production.</p> <p>vii. Monitoring should include: VOCs, Hazardous Air Pollutants (HAPs), BTEX, Hydrogen Sulfide, Oxides of Nitrogen (NOx), Particulate Matter, Fine Particulate Matter, Carbon Monoxide, methane, and carbon dioxide.</p>

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		<p>viii. Any increases in the monitored pollutants should be required to be reported to both the COGCC and County so that the source can be identified and appropriate remedial actions taken, including notification of affected citizens.</p> <p>[See for example: Broomfield Oil and Gas Code Regs. 17-54-060(O) and (P).]</p> <p>6. Wastewater injection wells should be prohibited in Arapahoe County.</p> <p>7. Use of water for oil and gas drilling operations which could otherwise be used for drinking water, should be prohibited during Arapahoe County’s Stage D2 and above categorized drought years.</p> <p>8. An effective neighborhood alert process should be developed in the event there is a “significant” contaminant spill; a “significant” spike in airborne toxins; a “significant” drinking water contamination; or a well pad fire. “Significant” should be defined as an incident which exceeds applicable Federal, CDPHE, COGCC, or County standards.</p> <p>9. Special regulations should be developed to monitor any fracking-related hazard which may affect the integrity of areas of particular environmental concern (such as the EPA Superfund site), to include baseline studies to determine special risks. This should include, but not be limited to, seismic risks from fracking and truck traffic. To monitor these risks, regulations should include, but not be limited to, continuous seismic monitoring at these areas and annual studies to check for significant new environmental risks to health and safety.</p> <p>10. Special regulations should be developed to ensure proper containment of wastewater pools, particularly against the risk of overflow caused by the capture of rainwater or excess sediment.</p>
<p>Comments Provided at Open House on June 21, 2023</p>	<p>Reservoir Setbacks Poster</p> <p>[Staff note: These existing setback rules are not proposed for revisions at this time.]</p> <p>Meeting Notifications rather than the</p>	<ul style="list-style-type: none"> • Reservoir owners and operators are not tasked with duty to protect public health, safety, welfare and the environment. Cannot delegate decision to them. 1 mile is minimum start. 500 feet is never acceptable. 3,000-foot is absolute minimum. • What is the scientific basis for a 2,000-foot setback from homes when research shows negative health impacts at much greater than 2,000 feet?

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	<p>Reservoir Setbacks Poster continued</p> <p>General comment</p> <p>[Staff note: the existing regulations address noise and wildlife and operators must have a fire district Will Serve Letter]</p>	<ul style="list-style-type: none"> • Neighborhood meetings should notify homeowners within 5 miles of change that is not 1 mile. • Fracking under homes results in the release of additional radon. Worsening of air quality; increase ozone. <p>[Staff note: The Colorado Geologic Survey stated that fracking at over a mile beneath the surface does not cause any foundation damage/cracks and further stated that foundation cracks/settling are due to irrigation at the surface near foundations, due to clayey soils that alternately expand and contract when wet and when dry].</p> <ul style="list-style-type: none"> • How do the regulations address noise issues? Wildlife? Fire? • What is downgradient? One mile is the bare minimum. No oil and gas should be nearby reservoir. • If a regulation has to be reasonable and justified, what better reason than to protect our population? • Continue to monitor well water/aquifer for rural homeowners • Unless downgradient conditions can be satisfied” as explained to me by Mr. Weimer, this only is determined by surface gradient. For vertical drilling, different gradients may exist at different depths. Gradients must be considered at surface conditions. • The comment “with approval from the reservoir owner or operator, the setback may be reduced to a 500-foot setback” lacks protection from the public, and lacks standards for quasi-judicial review. • What is the basis for reducing setbacks to 2,000 feet? Is there scientific basis that is sufficient? • Downgradient condition” appears to be based solely on the well site location. But oil and gas and wastewater will be transported away from well, leading to possible spills.

Comment Provider	Proposed Phase 1 Rule Topic and Criteria	Rule Wording/Stakeholder Comments
		<ul style="list-style-type: none"> • Downgradient allowance must be proven through use of independent scientifically based studies and investigation to be at least as safe as 1 mile or more. • How will house settling issues be resolved? <p>[Staff note: The Colorado Geologic Survey stated that fracking at over a mile beneath the surface does not cause any foundation damage/cracks and further stated that foundation cracks/settling are due to irrigation at the surface near foundations. Soils expand and contract due to clay content.]</p> <ul style="list-style-type: none"> • Air quality concerns, health concerns, noise issues, wildlife impact, earthquake-stability of reservoir dam, fire potential, water contamination. • You can't justify 2,000-ft setback using latest scientific studies. • Neutral downgradient study must be done. Follow science. • The topography and hydrology of the drill site matter more than setback. Increase setback if drill pad is in same watershed as reservoir.
<p>Comments Provided at Open House on June 21, 2023</p>	<p>Lesser Setbacks Poster</p>	<ul style="list-style-type: none"> • Civitas Arena welcome banner was a slap in the community's face. Need a neutral space. • This will be heavily abused by the oil/gas industry. • No thanks! 2,000 feet is close enough. • Let us fundraise to help make up the difference of money made – when the CAP is cancelled. • County rule must be no less than 3,000 feet under any circumstances. Must show major independent study to justify less than 1 mile. • The provision that lesser setbacks may be approved by BOCC appears to lack standards for the BOCC to make that determination. "Substantially equivalent protection" is too vague – protection from spills? Protection from emissions? Protection from noise? All of the above? • There needs to be a presumption that the setback must be followed unless the operator can show a lesser setback is necessary to preserve public health, safety and environment. • People want the rule to be the rule. Stop the back and forth. 2,000 feet +. • No allowed lesser setbacks. Setbacks are not far enough as proposed. • No allowed lesser setbacks. • The setback must be 2,000+ feet, not 500 feet. What about Fires? Wildlife? Stricter setbacks for schools. • Cancel the CAP. Community to fundraise the \$ to support County programs. • Please share with the residents of Arapahoe County the \$ amount of campaign donations from O&G to each Commissioner.

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		<ul style="list-style-type: none"> The rule should be at least one mile, not 2,000 feet. Any justification less than 1 mile must be done through an independent certified 3rd party to be equivalent to 1 mile or more.
Comments Provided at the Open House on June 21, 2023	Cryptocurrency Poster	<ul style="list-style-type: none"> Need to address high frequency noise similar to data farms How are locals protected from the burning/exhaust of the gas used to power the mining? I agree with the letter sent by John Granger re cryptocurrency How will the noise be addressed? Do mineral right owners get a share of the crypto income that the operator gets? What regulations govern infrastructure required for crypto mining sites? These are huge consumers of energy and water. How often are capped pads inspected? How will you regulate and monitor the emissions from the burned gas? Must be highly controlled and scrubbed to not contribute to our already poor air quality? The crypto mining use of gas is just another huge source of local fossil fuel pollution. Why not mandate the oil and gas companies build their own pipeline to move it elsewhere away from populated areas? Will the profits pay for the healthcare of local residents?
Comments Provided at the Open House on June 21, 2023	Additional Information Poster	<ul style="list-style-type: none"> How do the rules address wildlife and other features affected by well pad locations, flowlines, access roads, traffic, noise, etc.? Are impact statements required? <p>[Staff note: the existing rules do address wildlife, traffic and noise. The proposed rules create stricter access road standards].</p>

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Comments Provided at the Open House on June 21, 2023	Post-Incident Meeting Poster	<ul style="list-style-type: none"> • Will an alert be blasted on a loud speaker? How will this be informing all affected? • Citizens should be made aware of all incidents with a timely manner (max 3 days). Transparency is vital to public trust. • Incident reports should be made available to the public on the Arapahoe County website within 3 calendar days of incident. • Where a formal incident report is required, further drilling or operations activity should be stopped until the post-incident meeting with County staff is held and the staff determine it is safe to proceed. • There must be readily accessible public records of all incidents. • Must be immediate notification/alarms to the public when health, safety and welfare is threatened. • Since you have post-incident reporting you already know there will be incidents. One incident is too many. Are you willing to gamble with our lives? Put all incidents on the County website.
Comments Provided at the Open House on June 21, 2023	Facilities Needing to be in Compliance with State and Federal Laws Poster	<ul style="list-style-type: none"> • State and Federal laws are not strict enough. Arapahoe County can and should hold to a higher standard. • Useless amendment. Just for show. Federal and state laws and regulations already apply. • Arapahoe must follow Commissioner Warren-Gully's statement and set our own level of standards and best practices to be a leader (the best) in protecting public health, safety welfare and the environment. Set the example for other local government units in the state and country. Don't rely on others that we know are lacking. • The current standards are not strict enough for this urban dense populated area. • What exactly do the current standards protect? Rules and regulations should protect the health and safety of the environment, communities and wildlife. Fines are not severe enough to deter bad practices. • Greed.

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Comments Provided at the Open House on June 21, 2023	Access Roads Standards Poster	<ul style="list-style-type: none"> • Access roads are critical to prevent runoff and damage from spills. These are not sufficient for all of Arapahoe County oil and gas. • Access road standards should include protection from spills, such as culverts, drainage, etc. to divert spills way from land nearby. • How close will these roads be to the Superfund site? How will the vibrating affect it? • How will the trucks affect the local residents? Noise, traffic, gas, school kids. • How will these protect the potential spills? • Distance from homes and schools – noise, dust are pollution issues. Setbacks from waterways (spills!) and Superfund site. Vibrations from heavy trucks affect site integrity that’s already leaking. • Must have sufficient equipment on-site for immediate reaction to emergencies. Must be approved by emergency management services organization (OEM) and fire department.
Comments Provided at the Open House on June 21, 2023	Handwashing Facilities Poster	<ul style="list-style-type: none"> • Will gas masks/hazmat suits be provided for local children? Will you cover my costs for inhalers so my children don’t die? • This should’ve been hosted at a neutral space. Arriving to see “Civitas Arena” is not a warm welcome to the community. • Can you also provide public health financial assurances for those of us breathing the toxic fumes? • Concerned regarding increased radon infiltrating our homes, increased ozone and negative health impacts. Concern about fracturing and creating issues with my home’s stability. Poison leaking into water supplies. • Yes but there are much more important topics that must be addressed in Phase 1 – air quality, monitoring, financial assurances, superfund site protection, and more! • Visual representation showing red lines to show revisions/updates. • Please load each poster as a PDF with comment option for those who couldn’t attend tonight.

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Comments Provided at the Open House on June 21, 2023	Neighborhood Meetings Poster	<ul style="list-style-type: none"> • Does the County perform air quality modeling? If so, could folks down-wind be included in notifications? • Must notify folks and businesses within at least 10 miles if not the entire County. This will affect everyone’s environment as well as public health, safety and welfare. Best science of recent studies shows 5-10 miles and fire issues are more than 1 mile away. • Arapahoe County needs to be the lead on human life – notices to those only 1 mile away is a joke. This needs to be a minimum of 10 miles. • Notification should be sent to all owners and HOA’s within entire pooling area and not just drill site. • Notify the entire County of this. Follow the science. • “Homeowner Association” should be expanded to include all metro districts and other neighborhood organizations. • Notice area needs to be much farther – 10 miles. • “One mile of proposed facility” is ambiguous – should include one mile of any portion of the proposed facility, including underground drilling or transportation of oil/gas or wastewater.
Comments Submitted through the Oil & Gas Webpage		<p>1. Section 5-3.6.E.2 Neighborhood meeting: metropolitan districts (e.g., Tollgate Crossing metropolitan district, Beacon Point metropolitan district) and authorities (e.g., Tallyn's Reach Authority, Saddle Rock Authority) today are replacing homeowner associations in many neighborhoods. The metropolitan districts and authorities should be notified as well as homeowners association.</p> <p>2) Section 5-3.6.E.2 notification only of those homeowners, residents and associations "within one mile of the pad boundary" is too limited. Drilling-related activity may affect properties far from the pad boundary for example if the wells are drilled under their property or if roads will necessarily carry fracking fluid, waste fluids, etc. Notice should be given to all property owners, associations, etc. within 1 mile of ANY proposed drilling-related activity.</p> <p>3) Section 5-3.6.F.2.d reservoir setbacks - the term "downgradient" does not appear to be defined. It seems this applies only to the surface topography (i.e., so long as any leaking oil or contaminants AT THE SURFACE flows away from the reservoir it is OK to reduce the setback to 2000 ft). However, this is not appropriate for example if there are subsurface features (rock or clay structures for example) that would direct SEEPING oil in a different direction, or if there are gradients/rock formations that would direct oil spills from defective casing, for example, below the surface toward the reservoir. This exception either needs to be eliminated or much broader. In addition, the downgradient condition should be required for ALL operations associated with the oil and gas operations near the well pad such as oil pipelines, roads that would carry contaminated fluids or oil, etc. as those pipelines and roads may direct oil spills, etc., back toward the reservoir.</p> <p>4) Section 5-3.6.F.2.d the 500 foot alternative setback "with consent of owner" is illogical and does not promote public safety - if the reservoir owner is corrupted in some way such as a ginormous payment from the oil company, it is illogical for the county to allow public safety and precious water supplies to be</p>

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		<p>compromised just because of the consent of the owner. 5) Section 5-3.6.F.3.m incident reporting - the post-incident meeting is a good idea but it should be open to the public and operations related to the incident should cease until the meeting occurs. 6) Section 5-3.6.F.11 access road standards - there should be a requirement that access roads provide appropriate gutters or other facilities to direct any spills or contaminants away from surrounding terrain. 7) Section 5-4 definitions - downgradient needs to be defined.</p> <p>These proposed amendments are grossly insufficient in addressing the documented concerns of Arapahoe County Citizens. Specifically: 1. The setback exceptions undermine the intent of the 1 mile set-back. It creates subjective loop-holes that puts the power in the hands of the oil and gas operators and nullifies the voice of citizens who are directly impacted. 2. The cryptocurrency use is woefully undefined in the amendment. And I believe that is intentional because a use like this only increases concerns regarding pollution. Furthermore, the argument made by oil and gas is that fracking projects are necessary for "our" energy needs as local residents. However this accessory use is definitively NOT for the production of energy used by consumers and the likely beneficiary would be wealthy investors well beyond our county. In summary, this set of amendments feels like lip service to citizens and a wink and a nod to the oil and gas operators. There is nothing substantive to remove the pollution risk to the community let alone anything that improves the benefit to the community.</p> <p>Hello Arapahoe County Officials, I know you have a lot on your minds, and I'm sure you're trying to find balance and keep a lot of people happy. However, your residents should be the #1 priority. Do you agree? Please take my comments below to heart. I know your jobs are not easy, but the decisions you are making will affect the future of Arapahoe County for generations to come. My primary concern is about setbacks. What is the point of a 1-mile setback from reservoirs and proposed reservoirs if you already bake loopholes and exceptions into the proposed amendment? Should we propose laws that say it's ok to speed, as long as you're going uphill? Truth be told, 1-mile setbacks from these fracking operations are nowhere NEAR far enough. But, I understand there's no chance you'd go up from 1 mile. Additionally, reverse setbacks are already a loophole in themselves. When you look at a proposed project like the Lowry Ranch CAP, a residential development is planned immediately to the east of the Blackstone community that will be right next to a proposed drilling site, much lower than your county setbacks. Why is this ok? The order of operations make it ok? Since the drilling site will likely come first, the safety of the community doesn't matter? This makes zero sense... Reverse setbacks should be eliminated altogether. By continuing to entertain O&G projects like the Lowry Ranch CAP, you're opening the door to permanent damage in our county, not to mention making this a far less desirable place to live. Are long-term impacts not considered at all? Doesn't Arapahoe County have more to offer than a bunch of fracking sites? Can't we capitalize on retail, housing, tourism and recreation? Can't we build long-term value for OUR people, not for multi-billion dollar</p>

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		<p>publicly traded companies that are majority owned by foreign investors? Wow, Civitas has a corporate sponsorship for something at the Arapahoe County Fairgrounds... they must really care about the people of our county. Do your research. The Canada Pension Plan owns the most shares of Civitas Resources, followed by about ten other private equity groups. Do you really think they care about the people of Arapahoe County? Are we really that naïve? This is ALL about money, otherwise it would not be happening in our county. And what in the world is this about cryptocurrency mining? There's no way that's beneficial for our "health, safety, wildlife and the environment." PLEASE, do the right thing. Come up with some loophole-free regulations. Stand up for your residents. And please, DON'T cave to billionaires that have promised the world to you. We don't need them. Arapahoe County is great. The Aurora Reservoir is great. The city of Aurora is great. Open space is great. Why must we ruin it? Thank you for your time and consideration of my comments</p> <p>Do not make exceptions to the one mile setback!</p> <p>One-mile setbacks should be increased to something higher in order to reduce the impact on the local populace. Additionally, this would apply to the burning of natural gas in order to power cryptocurrency mining, which should be further than one-mile.</p> <p>Please stick to a minimum of a one mile setback from all homes and bodies of water (current or planned). Better yet, so not allow this project to happen at all. We do not have the water table to support this, they will frack under an unstable (and already leaking) superfund site, and fracking has proven to cause children who live within a mile of fracking to develop cancer at 2-3 times the rate of others. Additionally, our air quality is already horribly rated by the EPA, and fracking releases VOCs and CO at a level harmful to all, but especially children and the elderly. Don't let this company destroy our community!</p>
League of Women Voters	Reservoir Setbacks Cryptocurrency Mining Other Items	<p>The attached letter from the League of Women Voters requests that the one-mile setback not have any waiver allowances. They also recommend a 2,000-foot setback from 100-year floodplains, wells, streams and from the edge of riparian areas.</p> <p>They do not support including cryptocurrency mining as an allowed use.</p> <p>They would like expanded residential setbacks to be included as an additional code amendment at a later date and would like wildland urban interface addressed in a future code update.</p>

Notes:

1. Many of the comments received in the last several weeks relate to the rules adopted in November 2021, rather than the currently proposed rules. They are included in this table. Our focus with the currently proposed rules is to further protect health, safety, welfare and the environment. Specifically water reservoirs public drinking water systems.
2. No internal stakeholder comments were received from Transportation.
3. Staff provided posters for the rules topics at the open house, hence the open house comments are sorted by the poster/rule topics. Comments received at the poster tables don't always relate to the poster topics.