Broomfield Comprehensive Plan Update Committee:

As always, we appreciate the significant amount of work that has gone into recommendations to update the Broomfield Comprehensive Plan.

To that end, it is important to ensure these recommendations, as they may be used as a baseline to creation of local regulations, are not in conflict with the laws of the State of Colorado and the U.S. federal government. It is also extremely important that these regulations are valid from a technical and economic feasibility standpoint. In-depth technical knowledge of detailed feasibility issues can generally be found among the experts at the COGCC, which is a critically important reason that oil and gas in the State of Colorado is regulated at the state level. In general, all definitions and specific recommendations should be clearly communicated; e.g., rather than saying “operator shall ...” etc., current draft recommendation language states that “operator may ...” etc. While we understand this is an attempt to prevent facial legal challenge to the eventual Broomfield oil and gas regulations, there is more than enough in these draft recommendations that constitutes fertile ground for a facial legal challenge by operators and it is ultimately best to simply publish clear regulations.

In addition to this important point, and even if the language is further clarified, there remains a number of concerns as to the technical and economic feasibility, and legality of the recommendations as currently written. We ask that the Task Force give proper consideration to the below critical points that serve the interest of ensuring that the Task Force’s recommendations are both technically and economically possible and in compliance with state law as it specifically relates to the doctrine of operational preemption that has been upheld by the Colorado Supreme Court on numerous occasions.

The below comments specifically relate to the current draft recommendations found in the document titled Copy of Appendix B – Regulatory Recommendations 7-26-17 – Google Docs:

Recommendation 3: Setbacks

The Committee recommends that “oil and gas” (the recommendation does not specify whether it refers to wells, production facilities, an oil and gas location or other) be required to be setback 1,320 feet from existing or platted residential areas, parks, playgrounds or sports fields and water bodies at highline, and that new construction must be setback 1,320 feet from an existing wellbore. The recommendation further and incompletely provides that “[a] setback of 150 feet shall be imposed for gathering and flowlines . . . .”

- Current draft setback recommendations would make our proposed project unfeasible and invalidate our existing MOU, violating the company’s vested rights.
- All modeling and air sampling conducted by the Task Force has conclusively demonstrated no or negligible impacts to neighbors beyond the pad boundary. The findings of the recent CDPHE health study published on February 21 underscore that there are no measureable health impacts beyond 500 feet of an oil and gas operation.
• The COGCC specifically regulates setbacks for oil and gas wells and production facilities. The COGCC minimum setback, subject to limited exceptions, is 500 feet. The Committee’s Recommendation is invalid under the operational preemption doctrine.
• By our estimation, the reverse setback for developers encumbers approximately 125 acres of commercial and residential land and the significant associated tax value to Broomfield.
• It is also unprecedented and contrary to the COGCC’s setback regulations to apply a setback to platted residences.
• Additionally, there is no way for the City and County of Broomfield to legally enforce such a setback measure.
• We additionally seek clarity as to whether the draft pipeline/flowline setbacks pertain to utility lines, which are currently in place throughout the community.

Recommendation 15: Disclosure of Hazardous Materials

The Committee recommends the banning of fifteen (15) specified chemicals in hydraulic fracturing fluids and that chemicals used must be disclosed to Broomfield before being brought on site.

• Disclosure of the exact composition before completions operations is technically unfeasible. While the ingredients for each well completion are generally known, they can be and often are modified during the completion operation on a real-time basis.
• MSDS Sheets are always available on site during each activity and can be provided electronically to key emergency responders as requested.
• The COGCC is the regulating agency for disclosure and requires information is provided to FracFocus.org within 60 days after completions operations per rule 205 A.
• The COGCC has not banned the chemicals defined in this draft recommendation, and Broomfield clearly cannot prohibit what the COGCC permits. Any health, safety and environmental concerns related to these chemicals must be addressed through COGCC regulations.
• The COGCC regulates disclosure of hydraulic fracturing chemicals. Broomfield’s Recommendation significantly deviates from the COGCC’s disclosure regulations by not allowing disclosures to be withheld on the basis that the chemical composition is a trade secret. The COGCC still protects health, safety and environmental concerns related to withheld chemical disclosures by providing that identities and quantities of otherwise withheld chemicals shall be shared with health professionals who need disclosure for the purposes of diagnosis or treatment of an individual that may have been exposed to the chemicals.
• With all that said, Extraction Oil & Gas has maintained and continues to assert that we are willing to go beyond state-required regulations because we have in place a Responsible Products Program through which we limit ingredients used in hydraulic fracturing treatment based on EPA regulations and other best practices.

Recommendation 21: Air Quality

The Committee includes several recommendations pertaining to air quality that differ from or exceed the requirements of the EPA, COGCC and CDPHE. Air quality for oil and gas operations is regulated by the CDPHE, EPA and partially the COGCC. The State of Colorado, through regulation by the CDPHE, demonstrably has the most stringent air regulations in the United States.

• Recommendations included in this section in many cases directly contradict other draft recommendations as well as the regulations from CDPHE, COGCC and EPA.
  o For example, Recommendation 21.21 appears to be a combination of two separate CDPHE regulations that regulate different operational processes, and have, in these draft recommendations, been combined into one. This makes these recommendations unclear and in several cases, infeasible. We are glad to expand on this important point through further communication with the Task Force.
• Many of the air quality recommendations are drafted as permissive (e.g. the recommendations provide that operators “may” be required to do various things) or vague (“avoid causing degradation to air quality … to the maximum extent practicable”).

2
As an additional example, Tier 4 engines are not widely available specifically for pumps on hydraulic fracturing fleets. Any requirement for Tier 4 engines is currently infeasible.

Several provisions within this section are onerous and/or unnecessary to the point of rendering oil and gas development projects uneconomic. In these cases, the recommendations act as a de facto ban. However, the recommendations are preempted on an as-applied basis.
  - 21.31 specifically recommends that Broomfield establish emissions permitting limits or work practices based on unknown standards and that are unenforceable. CDPHE is the expert entity for permitting of this type.

**Recommendation 28: Water Quality**
The Committee includes several recommendations pertaining to water quality that differ from or exceed the requirements of the COGCC and CDPHE. For example:

- This Recommendation would permit surface owners to request independent consultants to analyze water sampling and results. There is no such allowance as of right under COGCC regulation.
- This Recommendation impermissibly expands on the COGCC’s definition of “water source” to add “monitoring wells other than monitoring wells that are drilled for the purpose of monitoring water quality changes that are not associated with oil and gas activities.”
- Bradenhead monitoring is regulated by COGCC and reported to COGCC. Draft recommendations that require additional and more frequent testing than required generally serves no environmental purpose, but erodes the economics of these projects.
- The Recommendation exceeds the monitoring and well testing requirements of COGCC Rule 609.
- The Recommendations appear to be confused between baseline water quality and horizontal offset policy.
- The addition of the projected track of the borehole adds a potential technical challenge and an unnecessary financial burden.

**Recommendation 33: Noise Mitigation**
This Recommendation would require all power used during all phases of operation to be generated from the power line of a utility company and prohibit unloading of pipe between 6:00p.m. and 8:00 a.m.
- The COGCC does not require the use of all-electric power, and Broomfield cannot require what the COGCC does not require.
- The COGCC does not have a time restriction on the unloading of pipe. Broomfield therefore cannot place a restriction on the unloading of pipe.
- The Recommendation appears to have more stringent noise standards than does COGCC Rule 802.
- The Recommendations proposed are lower than the ambient noise signatures that have been collected and provided to the committee. Thus, any such recommendation would be impossible to comply with.
- The committee is requiring mitigations in conflict with the studies required to be completed to guide mitigation strategies for site-specific conditions.
  - For example, why should 32-foot walls be required when impact studies and analysis dictate that 28-foot walls are adequate to satisfy the noise mitigation requirement.
- Noise limits should be receptor based and not based on a generic distance from a pad or location.

**Recommendation #34: Flowlines/Pipelines**
This Recommendation contains many requirements that aren’t in the COGCC regulations.
- As examples:
  - The COGCC requires yearly, not quarterly, pressure testing, and Broomfield cannot enact a more frequent pressure testing requirement than the COGCC.
    - Critically, an increase in the frequency of testing requirements adds no additional benefits as they are monitored on a continuous basis, and instead such a recommendation causes additional emissions in order to “blow down” the flowline more frequently for testing.
  - The COGCC does not require the location of new flowlines to be recorded and Broomfield cannot require what the COGCC does not require.
• The Recommendation includes a flowline setback requirement that is not in the COGCC 1100 Series. Pipelines are additionally robustly regulated by PHEMSA, DOT and PUC. Recommendations that conflict with, or exceed, the regulations enforced by these entities are preempted and illegal as regulations.

**Recommendation 37: Soil and Gas Monitoring**
This Recommendation would require testing the soil near wellbores for the presence of hydrocarbons by an independent testing agency approved by Broomfield County. The recommended testing intervals and sampling scope are unduly onerous.

• The COGCC does not mandate a soil and gas monitoring program. Broomfield may not mandate what the COGCC does not.
• This technology is still developing to prove or disprove findings.
• Wellbore pressures are already monitored continuously.

**Recommendation 46: Plugged & Abandoned**
The recommendations for plugged & abandoned wells can actually affect wells producing at different depths and formations, which as currently written could render useless potentially millions of dollars of value to operators and would violate a basic tenet of the COGCC charter to minimize resource waste.

• With all that said, Extraction Oil & Gas has maintained and continues to assert that we are willing to go beyond state-required regulations by plugging vertical wells in the Broomfield area. However, in the case that these verticals were producing from the J-sand, for example, and not the Niobrara/Codell, we would not be able to make such a commitment.

There are a number of additional issues encumbering these draft recommendations, but the above highlighted recommendations are the most concerning. The above comments also do not relate to those recommendations that are listed in the draft, but are yet to be defined. Specific to Extraction Oil & Gas, Inc., we additionally have an MOU in place that governs our operations in Broomfield in addition to the associated vested rights from Broomfield under our MOU agreement, USR and surface use agreements. While we have committed in good faith to go beyond the requirements of that MOU in certain instances, and we have certainly been willing to engage and collaborate with the Task Force over the last several months to inform their recommendations to Council, we cannot support recommendations that are onerous, overly economically burdensome or technically infeasible for obvious reasons. We are glad to communicate further with the City and County of Broomfield or with the Task Force to clarify how these draft recommendations can be improved and optimized.

Sincerely,

Chandler Newhall