



ARAPAHOE COUNTY
COLORADO'S FIRST

BOARD SUMMARY REPORT

Date: March 12, 2020

To: Board of County Commissioners

Through: Bryan Weimer, Director of Public Works and Development

From: Diane Kocis, Energy Specialist

Subject: **Quality of Life Recommendations: Visual, Traffic and Wildlife Mitigations Factors to Consider for Oil and Gas Facility Updated Regulations**

Request for Direction and Staff Recommendation

The purpose of this Board Summary Report (BSR) and Study Session is to provide a status update to the Board of County Commissioners (BOCC) regarding the ongoing process to develop new oil and gas land use/siting regulations in accordance with SB19-181. This update will include rules adopted or drafted in other jurisdictions regarding visual, traffic and wildlife impacts and will offer some recommendations for mitigating those impacts. BOCC direction is requested on potential mitigation measures related to visual, traffic and wildlife impacts from oil and gas operations affecting the quality of life for nearby residents.

Links to Align Arapahoe

This matter links to the Align Arapahoe goal for Quality of Life for Arapahoe County citizens who will be impacted by neighboring oil and gas facilities and to the goal of Fiscal Responsibility for a balanced approach that will allow the industry to operate successfully.

Background

With the enactment of SB19-181, preemption of local government authority over the siting of oil and gas operations was removed. Staff is working to achieve a balanced approach, as directed by the Board of County Commissioners for new oil and gas rules that considers the interests of both operators and citizens in accordance with the County's authority under SB19-181.

Staff is currently completing a spreadsheet of proposed and adopted rules in eight other Front Range jurisdictions. The spreadsheet will be shared with the Board.

Staff is still working toward a goal of completing the Land Development Code revision process in August of 2020 with BOCC adoption of updated codes. Staff continues to review and summarize regulations drafted and adopted in other jurisdictions and to evaluate BMPs and mitigations used in other jurisdictions.

Quality of Life Concerns – Visual, Traffic and Wildlife Impacts

Today’s study session focuses on aspects of Quality of Life impacts. *Stakeholders have said that light, noise, visual impacts, wildlife concerns, and traffic all have an impact on Quality of Life. This report discusses the visual and traffic and wildlife aspects of Quality of Life.* The attached table summarizes the rules proposed or adopted in other Front Range jurisdictions to address visual, traffic and wildlife impacts from oil and gas operations.

Visual impacts from neighboring production pads, increased traffic and impacts to wildlife affect many aspects of our residents’ quality of life. Based on survey results, 47% of the survey respondents indicated that increased traffic concerns them, and 65% said that impacts to wildlife habitats are important to them. Traffic from oil and gas operations has been one of the most frequent resident complaints received since the Niobrara play began in unincorporated Arapahoe County eight years ago. Visual impacts from construction, drilling, and fracking/completion are also a common complaint. While more difficult to quantify, Colorado Parks and Wildlife has communicated that wildlife can be significantly impacted by the noise, vibrations, lights and traffic associated with oil and gas operations.

It is important to note that we currently require a Transportation Impact Study for each new pad proposed; therefore, some of the traffic items required by other jurisdictions would not be applicable. Staff plans to incorporate our existing Land Development Code rules and MOU requirements into the new rules.

As we heard from the survey and the public outreach effort for this project, minimizing the impacts of nearby oil and gas development with mitigations is important for our residents’ quality of life.

Discussion

The potential oil and gas regulations can include prescriptive standards, performance-based standards, or a combination of both.

- A performance-based standard sets a target (“using evergreen landscaping or permanent fencing, provide screening of at least 70% opacity from a height of 0 feet to 8 feet between any permanent tanks and any residential use within 1,500 feet”). Generally, industry prefers performance-based standards, which allow them flexibility in how to address a particular issue.
- A prescriptive standard requires a specific mitigation measure (“low profile tanks are mandatory”). In some cases, a prescriptive standard may be simpler to enforce and provide a clear expectation and understanding of requirements.
- Other “tools” for mitigation, such as setbacks for the well pad from a residential structure, could be considered in combination with other prescriptive or performance-based measures for visual impacts.

Staff is considering the following visual and traffic mitigation requirements as part of the new regulations based on rules proposed or already adopted along the Front Range:

Visual:

- Require a Land Disturbance Mitigation Plan which would include visual mitigation and an Agricultural Mitigation Plan if agricultural land will be disturbed.

- Require that production facilities be painted with uniform, non-contrasting, non-reflective colors matched to, but slightly darker than, the surrounding landscape.
- Require low-profile tanks if the proposed facility will be within a half mile of existing homes or platted residential lots.
- In addition to low-profile tanks, require berms, opaque fencing or other forms of landscaping if the facility will be within ¼ mile of existing homes.
- Require that all locations be kept free of equipment, vehicles and supplies not necessary for use on that lease (including weeds, rubbish and other waste materials).
- Staff recommends a 1,000-foot setback from well pads to existing homes to address a range of concerns, including but not limited to visual impacts.

Traffic:

- Continue to require a Transportation Impact Study that includes details about vehicle weights when loaded, access locations, sight distances, existing traffic volumes, traffic volumes in ESALs (Equivalent Single Axis Load), a truck routing map, identification of the need for additional truck lanes and time-of-day restrictions, such as minimizing road use during school bus hours.
- Require the use of temporary surface water lines to the maximum extent possible or modular large volume tanks to minimize the trucking of fresh water to pads for drilling and completions.
- Restrict truck traffic, including deliveries, between the hours of 9 PM and 7 AM, except for circumstances outside of the operators' control such as delivery of a drilling rig.
- Recommend the use of pipelines to the maximum extent possible to minimize the number of tanks on a pad and the associated truck traffic for transporting crude and produced water offsite.

Wildlife:

Note: some of the following options were also included for the study session on noise and light impacts, but are included here based on their impacts to wildlife

- Require a Natural Resource Assessment to evaluate the impacts to wildlife and habitat.
- Require the operator to implement the recommendations of Colorado Parks & Wildlife.
- If noise restrictions are enacted, those restrictions would reduce noise impacts on wildlife as well as nearby residents.
- Require the operator to install wildlife cameras when two pads are within a mile of each other and share the video with Colorado Parks & Wildlife so that wildlife biologists can evaluate the data.
- Encourage the use of electric drilling rigs and motors in place of noisier and more odor-generating rigs typically using natural gas or diesel.
- Provide covers or insulation for noisy equipment such as the shale shakers and compressors.
- Restrict the movement of tubular goods to daylight hours.

The regulations should also have provisions for violations/complaints, so as to ensure timely response to bring the operation back into compliance. Because of the nature of the operation that could be creating the impact, a timely response to violations is critical to resolve before that operation is completed.

Criteria for Evaluation

Staff will continue to use the evaluation criteria already presented at previous study sessions for any draft rules:

- Impact on the Public
- Alignment with State Rules
- Best Management Practices
- Industry Impact
- Impact to County Resources

Steps to be taken after this Study Session

At the April 7, 2020, study session, staff will cover any remaining Quality of Life topics under consideration for new rules. On April 21, staff will summarize the information provided in the January, February, March and April study sessions and seek Board feedback on specific items to incorporate in the Land Development Code revisions.

Alternatives: Quality of Life Measures to Address Visual, Traffic and Wildlife Impacts

Staff is requesting general feedback from the Board on the information presented and specific direction on the following:

Visual, Traffic and Wildlife Impacts: Staff expects future regulations will include a combination of performance-based and prescriptive measures; however, we are requesting feedback from the Board on specific measures that that may weigh into how the regulations are drafted. Draft regulations will be further reviewed through referrals, public review, and hearings.

Options for the questions below could be, for example:

Yesdefinitely require as part of regulations

No.....definitely do not require as part of regulations

Toolbox.....prefer performance-based measures; use *this* prescriptive measure as part of a package of options for the operator

Visual Mitigations

1. Should the County require a Land Disturbance Mitigation Plan which would include visual mitigation and an Agricultural Mitigation Plan if agricultural land will be disturbed?
2. Should the County require that production facilities be painted with uniform, non-contrasting, non-reflective colors matched to, but slightly darker than, the surrounding landscape? *Note, this is a requirement of the MOU currently in use.*
3. Should the County require low-profile tanks if the proposed facility will be within a half-mile of existing or platted residential lots?

4. Should the County require berms, opaque fencing or other forms of landscaping, as well as low-profile tanks, if the facility will be within a quarter-mile of existing or platted residential lots?
5. Should the County require that all locations be kept free of equipment, vehicles and supplies not necessary for use on that lease, including weeds, rubbish and other waste materials?
6. Should the County require a minimum setback of 1,000 feet from well pads to existing homes to address a range of concerns, including but not limited to visual impacts?

Traffic Mitigations

7. Should the County continue to require a Transportation Impact Study that includes details about vehicle weights when loaded, access locations, sight distances, existing traffic volumes, traffic volumes in ESALs (Equivalent Single Axis Load), a truck routing map, identification of the need for additional truck lanes and time-of-day restrictions, such as to minimize road use during school bus hours?
8. Should the County require the use of temporary surface water lines or modular large volume tanks to minimize the trucking of fresh water to pads for drilling and completions?
9. Should the County restrict truck traffic, including deliveries, between the hours of 9 PM and 7 AM, except for circumstances outside of the operators' control such as delivery of a drilling rig?
10. Should the County require the use of pipelines to the maximum extent possible to minimize the number of tanks on a pad and the associated truck traffic for transporting crude and produced water offsite?

Wildlife Mitigations - *note: some of the following options were also included for the study session on noise and light impacts, but are included here based on their impacts to wildlife*

11. Should the County require a Natural Resource Assessment as part of the application process to allow evaluation of wildlife impacts by Colorado Parks & Wildlife?
12. Should the County require the operator to implement the recommendations of Colorado Parks & Wildlife?
13. Should the County require the operator to install wildlife cameras when two pads are within a mile of each other and share the video with Colorado Parks & Wildlife so that wildlife biologists can evaluate the data?
14. Should the County encourage the use of electric drilling rigs and motors and other noise-mitigating technology, such as mufflers on engines, to minimize engine noise in place of noisier and more air polluting rigs typically using natural gas or diesel?
15. Should the County require the operator to minimize engine idling?
16. Should the County require operators to provide covers or insulation for noisy equipment such as the shale shakers and compressors?
17. Should the County restrict the hours of operation for noise-intensive activities such as flaring, blowdowns (pressure releases) and unloading of tubular materials between the hours of 9 PM and 7 AM?

Fiscal Impact

Depending on the specific changes adopted, it is likely a minimal financial impact will occur for the County due to additional plan review that would be required from approved or pending land development for new oil and gas facility applications. Ability to enforce any new regulations and impacts to staffing for ongoing implementation and enforcement of regulations are being taken into consideration by staff in making recommendations to the Board of County Commissioners.

Concurrence

PWD Staff is in support of continuing this process with additional study sessions and continued public outreach with the goal of drafting updated regulations for consideration through the public process. The County Attorney's Office has reviewed this BSR.

Attachment

Summary Table of Rules in Other Jurisdictions related to mitigation of Visual impacts, Traffic impacts and impacts to Wildlife

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