



**SUBJECT: CASE NO. LDC23-003 – OIL AND GAS LAND DEVELOPMENT CODE AMENDMENT**

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**July 13, 2023**

**PURPOSE AND REQUEST**

This County-initiated application proposes amending the existing Oil and Gas rules in Section 5-3.6 of the Land Development Code (LDC) to modify the application process, add two health and safety-related rules, allow data mining on well pads and add a new setback.

**BACKGROUND**

The proposed new regulations, shown as redlines to the existing Oil and Gas regulations in Attachment 1, reflect recent direction received from the Board of County Commissioners and staff-recommended changes to the Oil and Gas regulations adopted in November of 2021. During the review of several Oil and Gas applications after the adoption of the November 2021 regulations, staff identified a number potential improvements in the areas of health, safety, and implementation. Additionally, the proposed Lowry Ranch Comprehensive Area Plan (CAP), which proposes a number of oil pad sites near the Aurora Reservoir, highlighted deficiencies in public water supply protections. Although the Board of County Commissioners chose not to enact a moratorium on oil and gas development, the Lowry Ranch CAP applicant committed to pausing any applications for six months. The proposed amendments includes the staff-recommended improvements and provide additional reservoir protections. The proposed amendments address the urgent concerns surrounding potential Oil and Gas development near the Aurora Reservoir and correct omissions discovered after the initial adoption of the regulations.

**PROPOSED REGULATION SUMMARY AND ANALYSIS**

The proposed regulations are listed below. Proposed added or removed language is depicted in italics.

- Add wording to Section B, **Relationship to State of Colorado Rules:** *The Operation of a Facility in violation of any applicable federal, state, or other local law or regulation that results in adverse or negative surface impact(s) on or to public facilities and services, water quality and source, noise, vibration, odor, light, dust, air emissions and air quality, land disturbance, reclamation procedures, cultural resources, emergency preparedness and coordination with first responders, security, or traffic and transportation shall constitute a violation of the Land Development Code which may be enforced by law as other violations of the Land Development Code.*
- Amend Section E. 2, **Neighborhood Meetings.** The applicant shall send notification of the meeting to the Planning Division and to *all* property owners *of record, all occupied residences if occupants are different from the record owner, and all* registered

homeowners' associations to require the notice of the neighborhood meeting to be sent to all occupied residences, if the occupants are different from the recorded owner and all registered homeowners' associations *for residential subdivisions where any portion of the platted subdivision's boundary is within one mile of the proposed facility pad boundary.*

- Add wording to Section E. 4. **Application Submittal Requirements:** *Applications shall include an application narrative, photosimulations of the view of the well pad from nearby properties and documentation of floodplains, wetlands and riparian area boundaries.*
- Amend **Setbacks** Section F.2.b.iii. to add: 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.*
- Add Section F.2.d. **Water Reservoir Setbacks:** *All Oil and Gas Facilities shall be located at least one mile (5,280 feet) from existing or planned and permitted water reservoirs with a capacity of 100 acre/feet or more, unless the applicant can demonstrate that the Oil and Gas Facility is downgradient from the reservoir, in which case the setback shall be 2,000 feet. The water reservoir setback shall be measured from the Oil and Gas Facility's pad boundary to the nearest high watermark of the reservoir or as mapped on reservoir plans approved with permitting for a planned and permitted reservoir.*

*The water reservoir setback may be reduced below 2,000 feet if approved through the Use by Special Review process provided in Section 5-3.4. For approval of a lesser setback under this subparagraph, the Operator must establish the following criteria: 1. The oil and gas facility is downgradient from the reservoir; 2. The owner or operator of the reservoir does not object to the lesser setback; 3. Due to topography or other special condition of the property, the lesser setback is necessary to allow for safe construction, installation, and operations at the Facility; 4. Alternative Oil and Gas Facility design, best management practices, control technologies, and/or proposed conditions of approval proposed for the Facility will be effective to avoid, minimize, or mitigate adverse impacts upon such drinking water sources, and that with such mitigative measures, the lesser setback as proposed will provide substantially equivalent protection as the 2,000-foot setback; 5. That granting the lesser setback for the Facility as proposed and designed will not adversely impact public health, safety, or welfare or the environment; and 6. No setback may be reduced below the 500-foot setback applicable to other perennial surface water bodies.*

- Amend Section F.3.a. **Health and Safety Requirements**: The initial Emergency Action Plan (EAP) and the initial Tactical Response Plan (TRP) shall be forwarded to the County Office of Emergency Management (“OEM”) for review. *OEM shall review and approve or deny approval of the EAP and TRP within two weeks of submission by the Operator.* ~~at~~ Provided that an Administrative Use by Special Review or full USR has been approved for the proposed Oil and Gas Facility and provided that OEM has approved the initial EAP and the initial TRP and further provided that required engineering permits have been obtained from Arapahoe County, the applicant or other Operator may commence construction of the pad and access road for the proposed Oil and Gas Facility. After the pad and access road have been constructed, the Operator shall prepare ArcGIS Shape files for the well pad and access road.
- Amend Section F.3.a. **Health and Safety Requirements** to remove: *The Operator shall prepare and provide to OEM a detailed EAP and a detailed TRP, which incorporate the ArcGIS information for OEM’s review and approval prior to commencing any drilling at the site. OEM shall review and approve or deny approval of the detailed EAP and TRP within two weeks of submission by the Operator.*
- Amend Section F.3.m. **Post-Incident Reporting** to add: *In addition to the formal incident report, a post-incident meeting shall be required with County staff. The date, time and location of the post-incident meeting shall be determined by the Public Works and Development Director.*
- Add Section F.3.o. **Handwashing Facilities**: *Operator shall provide hand washing facilities meeting local Public Health Department requirements at portable restrooms during drilling and completion operations.*
- Amend Section F.11.b. **Access Road Standards** (to comply with fire code): Access roads shall be constructed to be at *minimum twenty (20’) feet wide with at least six (6”) inch road base, or applicable International Fire Code standard at the time of application.*
- Amend Section F.11.d to add **Alternate Access Road**: *If an Oil and Gas Facility site incident could prevent emergency access to or from public or private roads, the Operator shall construct an alternative access road meeting these standards.*
- Add **Cryptocurrency Data Mining** to the Permitted Uses Table 3-2.1 to allow this as an accessory use to an existing oil and gas facility and not connected to an electrical grid in the A-E and A-1 zones and **add a definition to the Definitions section 5-4**: *The operation of specialized computer equipment for the primary purpose of adding, securing, or verifying transactions to a peer-to-peer network, also known as a blockchain, or mining one or more blockchain-based cryptocurrencies (a form of electronic currency). This activity typically involves large networks of decentralized*

*computer servers that work together around the world to perform calculations and solve algorithms as part of the development and maintenance of a blockchain which is a type of distributed virtual ledger maintained on a peer-to-peer network. Typical physical characteristics of cryptocurrency mining include specialized computer hardware; the use of equipment to cool the hardware and operating space; and high density load electricity use.*

- Add a new **definition for the term “Downgradient”** in the Definitions section 5-4 of the Code: *At lower elevation from that of the reservoir measured at its average water level elevation or that there is intervening natural terrain or topography that prohibits the surface mitigation of liquids to the reservoir and there is no evidence of other hydrological connection from the proposed location to the reservoir.*
- Add a new **definition for the term “Planned and Permitted Reservoir”** in the Definitions section 5-4 of the Code: *An unconstructed, but planned reservoir that has received all federal, state, and local permit approvals required under applicable law or regulation to locate a public water reservoir of qualifying capacity at a specific and mapped location within unincorporated Arapahoe County.*

## **DISCUSSION**

The Board of County Commissioners (BOCC) approved [Oil and Gas regulations](#) in November 2021. Since then, two new sites and four amendments to existing sites have been approved and staff have identified potential areas of opportunity that could better align regulations with neighboring jurisdictions and industry best practices. At their March 21, 2023 study session meeting, the BOCC directed staff to develop appropriate amendments to further protect public health, safety, and welfare and the environment.

Staff identified areas of the oil and gas regulations that could be strengthened by creating setbacks from public water reservoirs, incorporating new fire district and health and safety rules and improve the application process by clarifying application submittal requirements. The neighboring municipality of the City of Aurora currently has a one-mile setback requirement between water reservoirs and oil/gas operations with provisions to allow a reduced setback under certain circumstances. The proposed code amendment seeks to align regulations with the neighboring municipality. In crafting the draft amendments, staff consulted with the affected area water providers, Aurora Water and Rangeview Metropolitan District. Both water providers concurred that a one-mile setback between oil and gas operations and existing or planned reservoirs is appropriate, and agreed that a mechanism to permit a shorter setback distance could be appropriate under certain circumstances, such as when the oil and gas facility is located downstream from the reservoir.

Additionally, staff added cryptocurrency data mining as an accessory use to existing oil and gas operations when not connected to an electrical grid. This update was prompted by direction from

the BOCC at a previous study session in October of 2022 when they directed staff to create a land use category for cryptocurrency mining in the Land Development Code. There are currently two oil and gas operators in the County who are utilizing existing well pads with this activity and the October 2022 study session discussed alternatives in which the County could permit this type of land use. Neighboring Adams County is currently working on a code update to permit cryptocurrency mining on oil and gas pads in that jurisdiction. A definition of cryptocurrency mining is proposed in this code amendment. While cryptocurrency mining is an emerging technology and an alternative for ‘orphan’ well pads that are not connected to a pipeline/gathering system and need a venue to flare methane gas (the methane gas powers generators on the pad site that power several computers that do the cryptomining), there are also potential nuisances, such as noise and air pollution. However, CDPHE does not have enough data to confirm that cryptocurrency mining has greater air pollution impacts than vehicle emissions or other industrial uses. Moreover, due to their isolated location in Agricultural zones and with mandatory minimum 2,000-foot setbacks from residential, there does not seem to be a need at this point for additional operational standards. Given the potential air quality concerns, if cryptocurrency mining is removed from the proposed regulations, staff could further study this with future amendments.

### **NOTICES AND REFERRALS**

To announce the draft rules to the public and other stakeholders, over 200 emails were sent to the email addresses of those who had previously commented regarding the county’s Oil and Gas Regulations. The comment due date was June 29, 2023.

Staff posted the proposed amendment on the County’s Oil and Gas website on May 29, 2023, as well as a notice of the County’s open house planned for June 21. Announcements were also made on NextDoor, Twitter, and Facebook.

On June 26, staff contacted 391 stakeholders about the Oil and Gas regulations redlines and the posters displayed at the June 21, 2023 open house, both of which were posted to the Oil and Gas website.

Public notice of the July 18, 2023 Planning Commission hearing was published in the Centennial Citizen, Englewood Herald, and Littleton Independent on July 6, 2023 and the I-70 Scout on July 7, 2023

On July 10, 2023, 391 stakeholders were notified by email that the Planning Commission hearing would be held on July 18<sup>th</sup> in the East Hearing Room at the Arapahoe County Administration Building on South Prince Street.

Staff referred the proposed regulations to State agencies including the Division of Water Resources, Colorado Department of Public Health and Environment (CDPHE), the Colorado Oil & Gas Conservation Commission, the Colorado Geologic Survey, the State Land Board, Front

Range local governments, citizen organizations, Arapahoe County oil and gas operators, industry organizations, developers, water providers, utility providers, HOAs, surrounding jurisdictions, local chambers of commerce, the Assessor's Office, Building Division, Engineering Services Division, Transportation, Open Spaces, the Zoning Division, the Office of Emergency Management, the Arapahoe County Public Health Department, and residents who contacted the county.

In addition to the public open house on June 21<sup>st</sup>, staff held a meeting with industry stakeholders on June 15<sup>th</sup> to obtain feedback on the proposed regulations.

### **STAKEHOLDER COMMENTS**

Many commentators expressed either opposition to portions of the draft regulations or suggested alternative wording. Attachment 2 provides a summary table of the stakeholder comments.

Generally, comments received from nearby residents indicate that they are not satisfied with the ability for operators to apply for a lesser setback if conditions are warranted and generally, comments received from the industry indicate that they are not supportive of the new setbacks because they do not believe there is adequate scientific evidence to support the setback.

County staff consulted with the two most affected water providers for these regulations, Aurora Water and Rangeview Metropolitan District. Both water providers have submitted written comments expressing support of the proposed reservoir setbacks and mechanism for requesting lesser setbacks. Staff also consulted with the Office of Emergency Management and area fire districts, and have not received any objections to the proposed code amendments. Please see Attachment 3 for copies of all stakeholder comments received.

Any additional comments received after posting this staff report on the County's website will be presented to the Planning Commission at the hearing.

In response to the stakeholder meetings and comments received, staff made changes to the language of the reservoir setback and added new definitions for "downgradient" and "planned and permitted reservoir". Specifically, staff added six criteria that an applicant would need to demonstrate in order to obtain approval of a USR for a reduced setback below 2,000-feet from the Board of County Commissioners. Those final changes have been incorporated into the redlined version in Attachment 1 and are also noted above in the summary of the regulations on pages 1-4.

### **ALIGNMENT WITH COMPREHENSIVE PLAN**

The proposed Land Development Code amendment is supported by, achieves, and addresses the following goals, policies and strategies of the 2018 Arapahoe County Comprehensive Plan:

*Goal GM 3 – Reduce the Loss of Life, Health and Property Due to Risks Posed by Natural and Human-caused Hazards*

Human-caused hazards in the Comprehensive Plan include airports, highway and railroad noise zones, Superfund sites and oil and gas facilities. The proposed amendments to the oil and gas regulations will provide appropriate distances between well pads and protected water bodies such as reservoirs, and will provide additional health and safety standards, thus reducing the risk of loss.

*Policy GM 3.5 – Protect Existing and New Development from Human-caused Hazards*

The proposed amendments to the oil and gas regulations seek to further protect the public health, safety and welfare of Arapahoe County residents.

*Strategy GM 3.5(b) – Establish Oil and Gas Operation Setbacks*

The proposed amendments to oil and gas operation setbacks will align with comprehensive plan goals of establishing a safe distance between drilling operations and protected water bodies.

*Policy PFS 1.4 – Protect and Enhance the Quality of Drinking Water in the County*

The proposed amendments to the oil and gas regulations will provide appropriate distances between well pads and water reservoirs, and will provide additional health and safety standards.

**FISCAL IMPACT**

The fiscal impact to the County of adoption of this amendment to the Oil and gas Regulations is expected to be minor and will only entail increased staff time in Planning for review of more application materials, waiver requests and additional recordkeeping.

**RECOMMENDATION**

Staff recommends approval of the Land Development Code amendment with the following stipulation:

1. Staff, with the approval of the County Attorney, may correct typographical errors and make such revisions to the Code amendment as are necessary to incorporate the approved amendment into the Land Development Code for publication.

**ALTERNATIVES**

The Planning Commission could take the following actions:

1. Recommend approval of the Land Development Code amendment as proposed or with modifications.
2. Continue the amendment to a time and date certain for more information.
3. Recommend denial of the Land Development Code amendment.

**CONCURRENCE**

The Public Works and Development Planning, Engineering, Zoning and the Office of Emergency Management, as well as the County Attorney’s office, have reviewed the draft regulations, and the Arapahoe County Public Works and Development Department is recommending approval of this case.

**DRAFT MOTIONS**

**Recommend Approval**

In the case of LDC23-003, Oil and Gas Regulations, Land Development Code Amendment, I have reviewed the staff report, including all exhibits and attachments, and have listened to the presentation and any public comment as presented at the hearing and hereby move to recommend approval of the proposed amendment to the Land Development Code, subject to the following stipulation:

1. Staff, with the approval of the County Attorney, may correct typographical errors and make such revisions to the Code amendment as are necessary to incorporate the approved amendment into the Land Development Code for publication.

**Recommend Denial**

In the case of LDC23-003, Oil and Gas Regulations, Land Development Code Amendment, I have reviewed the staff report, including all exhibits and attachments, and have listened to the presentation and any public comment as presented at the hearing and hereby move to recommend denial of the proposed amendment to the Land Development Code.

1. *State any reason for denial.*

**Continue to Date Certain:**

In the case of LDC23-003, Oil and Gas Regulations, Land Development Code Amendment, I move to continue the hearing to [date certain], 6:30 p.m., to obtain additional information and to further consider the information presented.

**ATTACHMENTS**

1. Oil and Gas Regulations Amendment, redlined draft.
2. Stakeholder Comments Summary Table
3. Stakeholder Comments Received