

1 - Welcome and Overview

Project Objective

Welcome to the Oil and Gas Regulations project meeting and open house.



- ✓ Larimer County does not currently have regulations in the Land use Code and is Moving toward developing effective local regulations to supplement State regulations (SB 19-181).
- ✓ The Colorado Oil and Gas Conservation Commission (“COGCC”), along with other state agencies, regulates oil and gas development and operations at the state level; however, SB 19-181 now allows for more local regulation.
- ✓ County regulations will provide for responsible exploration and development of oil and gas resources while protecting the public’s health, safety and welfare and prevent and mitigate adverse environmental impacts.

Purpose of this Open House

Now that the project is underway, this open house (and comparable online materials) are designed for the purpose of:

1. Clarifying Larimer County’s oil and gas regulation preparation process.
2. Share work done to date through the task force and input from the public.
3. Present initial ideas about possible oil and gas regulations to the public.
4. Answer questions from the public about the process and technical issues.
5. Take feedback from the community regarding proposed ideas for regulations.

After the open house, county staff will share the feedback with the task force, Planning Commission, and Board of County Commissioners.

Remaining Project Schedule

- ✓ New public questionnaire online Through Set. 30, 2019
- ✓ Task force scheduled to meet two more times (maybe three)
 - Wednesday Sept. 25 (Fort Collins)
 - Wednesday, Oct. 30 (Loveland)
 - November or December meeting not scheduled, but may be if needed
- ✓ Another public event to review draft proposed regulations, to be scheduled
- ✓ Draft regulations prepared, then Public hearings with Planning Commission and Board of County Commissioners (tentatively in December)



2 – What We Have Heard So Far?

What’s been going on with the project?

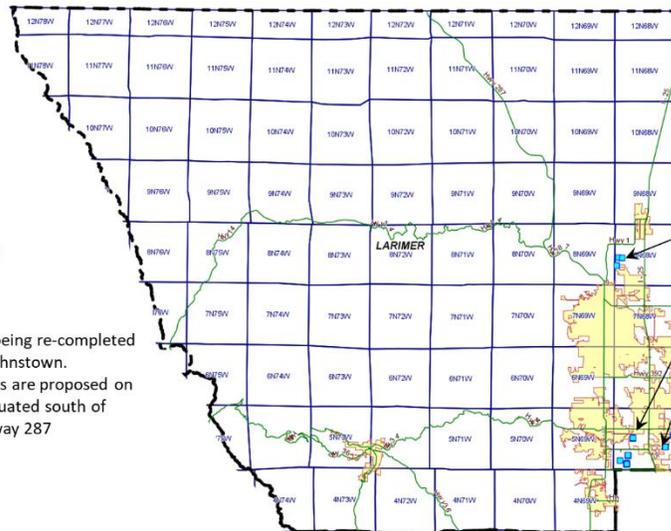
1. The Board of County Commissioners formed a Task Force Charter and assembled the Task Force for the project (Spring 2019)
2. Task Force has met three times (June, July, August)
3. Project webpage was created and hosts summaries, videos, and draft materials, and online comment forms (See Larimer.org/planning/oil-and-gas-regulations for results)
4. Online questionnaire hosted through end of August captured almost 800 comments (See Larimer.org/planning/oil-and-gas-regulations for results)
5. County hosting this open house to gather community input on

The table below is a comparison of how the Task Force and Public prioritized potential areas to regulate in order of priority.

Rank	Task Force Results	Public Results
1	Land Use	Air Quality
2	Setbacks	Water Quality
3	Environment	Environment
4	Nuisance Issues	Natural Resources
5	Transportation	Setbacks
6	Reclamation	Fire and Emergency Response
7	Site Design	Land Use
8	Water Quality	Reclamation
9	Air Quality	Nuisance Issues
10	Operational Protocols	Security
11	Fire and Emergency Response	Operational Protocols
12	Screening	Transportation
13	Security	Screening
14	Natural Resources	Other

Where is Current COGCC Oil and Gas Permitting Activity Occurring?

Pending COGCC Oil and Gas Permits in Larimer County



Pending COGCC Oil & Gas Permits In Larimer County Consist of:

- 56 new well permits:
 - 3 of which are existing wells being re-completed
 - 14 are in the jurisdiction of Johnstown.
 - 39 of the well pending permits are proposed on 6 new pad sites, which are situated south of Highway 34 and East of Highway 287



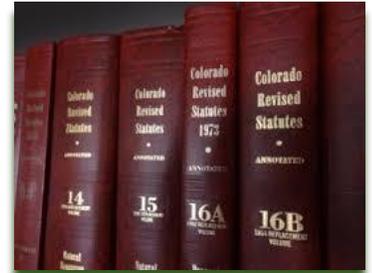
3 – Purpose, Authority & Applicability

Statutory Authority – SB 19-181

The primary premise for local regulation of Oil and Gas operations is granted by SB 19-181, which in part states:

“Each local government within its respective jurisdiction has the authority to plan for and regulate the use of land by:

Regulating the surface impacts of oil and gas operations in a reasonable manner to address matters specified in this sub-section (1) (h) and to protect and minimize adverse impacts to public health, safety and welfare and the Environment.”



Draft County Land Use Code Oil and Gas Purpose, Authority and Applicability

Larimer County is preparing oil and gas drilling and production regulations in alignment with **SB 19-181**, as illustrated in the draft code purpose, authority and applicability statements below, which would become part of the regulations (the Task Force has provided input on the purpose statement):

Draft Purpose:

The purpose of this section is to establish and administer necessary and reasonable regulations for oil and gas drilling and production in a manner that protects and promotes the health, safety and general welfare of the residents and environment of the County. To the extent practicable these regulations will require applications for oil and gas operations to demonstrate how adverse impacts will be mitigated to achieve a minimal impact on the environment, wildlife and residents of the County.

Draft Authority and Applicability:

- A. Pursuant to the authority granted to the County in C.R.S. 29-20-104(1), the review of oil and gas drilling and production applications may include, without limitation:
 1. Land Use,
 2. Location and siting of oil and gas facilities,
 3. Impacts to public facilities and services,
 4. 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 and traffic and transportation impacts,
 5. Financial securities, indemnification and insurance as appropriate to ensure compliance with the requirements of Larimer County, and
 6. All other nuisance-type effects of oil and gas development.
- B. These regulations shall apply to all oil and gas drilling and production activity commenced on any property in Larimer County, after the date of _____ (effective date), regardless of what zone district the property is situated in.

4 – Review Process and Thresholds

Possible Siting setback and Threshold Criteria for Administrative Review

A proposed oil and gas project must be located outside the following setback distances and threshold criteria to qualify for an administrative approval (Public Site Plan).

Feature Type	Minimum Setback Requirement (only for determining process)
Residential Building (used for dwelling purposes)	1000 feet
Residential Building (not used for dwelling purposes)	1000 feet
Non-Residential Buildings (includes high occupancy buildings, schools and childcare centers)	1000 feet
Drinking water sources or facilities (includes wells, reservoirs, lakes and ponds)	1000 feet
Floodways, and geological hazard areas	Not allowed in these areas
Designated outdoor activity area (parks, conservation easements, and public or private gathering venues)	1000 feet
Designated outdoor activity (Trails)	500 Feet
Wetlands of sensitive wildlife habitat	500 Feet
An adjoining municipal boundary	500 Feet

Threshold Criteria

- ✓ The facility shall not be used for storing or disposing of hazardous materials onsite.
- ✓ The operator shall not have any outstanding fines or penalties for non-compliance with the State of Colorado and Larimer County oil and gas regulations.
- ✓ The applicant agrees to comply with all standards and criteria of the regulations of this Land Use Code.

Planning Processes

Currently there is no review process at Larimer County for Oil and Gas Drilling uses. However, it is being proposed that all oil and gas drilling and production applications be required to follow one of two processes outlines below. If the propose project cannot satisfy the siting setbacks and additional thresholds the Administrative process would not be allowed and the more extensive Special Review process with public hearing requirements would be required. The table below explains the processes.

	Applications complying with all siting setbacks and additional threshold criteria	Applications that do not meet all of the siting setbacks or additional threshold criteria
Process Type	Public Site Plan	Special Review
Review Time	1-3 months	6-9 months
Fees (2019)	TBD, Approx. \$1000.00	TBD, Approximately \$6000.00
Public Notification to Neighbors within 500 feet?	Yes	Yes
Neighborhood Meeting Required?	No	Yes
Public Hearing PC/BCC?	No	Yes
Standards	Must comply with all standards – no appeals	Must comply with all standards – unless appeal is approved
Who Decides?	Community Development Director	Board of County Commissioners
Decision Appeal Process?	BCC	To District Court

5 – Application Requirements

The evaluation of development applications relies upon an applicant for and oil and gas facility illustrating compliance with Code requirements that are applicable for a particular use, and how adverse impacts of a use will be minimized and mitigated. In some instances, code standards are absolute and require compliance, while other code requirements are based upon the intensity and context of a use. In the latter case, specific studies/plans, prepared by professionals, are required to gauge the impact of a aspect of a use. Depending upon the study results recommendations for mitigating impacts to the expectations of the code are establish and presented for consideration in the evaluation of the application.

To adequately evaluate and recommend applications for consideration of the Community Development Director or the Board of County Commissioners it is proposed that the following be submitted with all Oil and Gas Drilling and Production applications:



1. Name, address, and telephone of the applicant
2. Legal description of the location
3. Acreage of the facility and parcel it will sit on
4. A Certification of ownership of mineral estate
5. A statement verifying the legal right to extract the mineral resources
6. A surface use agreement
7. A Project Description, including a general description of the use and the timeline for construction of the use
8. A Siting Plan, including two alternative sites
9. A Site Inventory Plan – including a map of all uses and buildings within 1500 feet of the site
10. A Utility Plan – including a map of all above and below grade utility lines, pipelines, or supporting structures within 500 feet of the proposed site.
11. A Site Plan, including offsite improvements All easements and rights-of-way within 500 feet of the site
12. An Air Quality Plan, including base air quality readings for the proposed site
13. A Dust Mitigation Plan
14. An Odor Mitigation Plan
15. A Noise Mitigation Plan
16. A Water Quality Plan
17. A Lighting (photometric) Plan
18. A Landscape and Screening Plan
19. A Drainage Plan
20. A Spill Containment and Reporting Plan
21. A Leak Detection and Repair Plan
22. A Waste Management Plan
23. A Wetland Study and Mitigation Plan
24. A Wildlife Study and Mitigation plan
25. A Site Security Plan
26. A Emergency Preparedness Plan
27. A Operations Plan
28. A Traffic Study, including mitigation measures
29. A Water Supply Plan

6 – What’s Up with Air Quality?

What is the State department of Public Health and Environment doing?



SB-19-181 clarified the authority of the Colorado Air Quality Control Commission to regulate emissions from pre-production activities, drilling and completion. The Bill offers the following mandates for oil and gas operators:

Leak Detection and Repair

- ✓ Require semi-annual leak detection and repair (LDAR) using an approved instrument monitoring method at facilities statewide with VOC emission greater than 2 tons per year (tpy) Note: this proposal includes compressor stations,
- ✓ Maintain existing LDAR quarterly and monthly LDAR requirements for facilities in the non-attainment area and statewide
- ✓ Allow operators to utilize an alternative LDAR program if they can establish it is as or more effective than semi-annual inspections
 - Could include program utilizing continuous monitoring devices or other monitoring methods (aerial surveys, long path monitoring, etc.)

Transmission Sector

- ✓ Implement requirements based on emission reduction program developed by Statewide Hydrocarbon Emission Reduction (SHER) Team
- ✓ Requires companies to develop and implement company specific Best Management Practices statewide with:
 - Annual compliance certification
 - Annual company-wide emissions report for third party verification
- ✓ Establishes Steering Committee consisting of environmental/local government, industry and division representatives to Develop system-wide emission intensity target, which will be periodically evaluated with a goal of achieving on-going emission reduction improvements

Pneumatic Devices

- ✓ Proposal will include regulatory provisions to achieve additional emission reductions from pneumatic devices statewide

Statewide Exploration and Production Facility Permitting

- ✓ Remove existing regulatory provision allowing operators of new oil and gas exploration and production facilities up to 90 days to apply for a permit



6 - What's Up with Air Quality? (cont.)

Storage Tanks

- ✓ Increase stringency of hydrocarbon liquid storage tank controls statewide (condensate, oil, produced water)
- ✓ Require all tanks statewide with VOC emissions equal to or greater than 2 tpy to have controls (reduction in control threshold from 6 tpy)
 - New controls in non-attainment area required by May 1, 2020 - Replace existing control program in non-attainment area with new, more stringent 2 tpy control threshold requirement
- ✓ Require new tanks to install auto-gauging devices to eliminate emissions when liquid levels are checked

Truck Loadout

- ✓ Require new and existing well production facilities statewide to control hydrocarbon emissions from loadout of tanks to trucks by using submerged fill and routing vapors to:
 - Vapor collection and return system or
 - Enclosed combustion device
- ✓ Existing facilities required to have control systems in place by May 1, 2021
- ✓ Inspection and recordkeeping requirements to ensure compliance

Well Unloading

- ✓ Expand statewide Best Management Practice requirements to include emissions during plugging and abandonment activities
- ✓ Enhance recordkeeping requirements

Annual Emission Reports

- ✓ Require operators to provide a comprehensive annual emission report for their oil and gas facilities in Colorado
- ✓ Pollutants - Methane (first ever methane reporting rule in Colorado), ethane, VOC, NO_x
- ✓ Emission points, intended to be comprehensive inventory including:
 - Drilling/fracking/completion, separator venting, flaring, storage tanks, dehydrators, engines, component leaks, pneumatic devices, equipment blow-downs, well unloading, produced water handling

To supplement what the State does, the County may consider standards that:

- a. Require Bi-Annual Third-Party Air Quality Monitoring (paid by oil and gas facility owner/operator)
- b. Require a plan for leak detection, reporting and repair
- c. Require feasibility analysis for the electrification of all permanent operation equipment including engines/motors
- d. Encourage the application of tankless production techniques
- e. Require alternative disposal of VOC's to Eliminate flaring,
- f. Encourage on-site use of captured natural gas
- g. Support pipeline for transportation of resources to limit truck traffic to and from site
- h. Require water delivery to the site to discourage water hauling

7 – What's Up with Water Quality?

Water Quality

The oil and gas rules implemented by Colorado Oil and Gas Conservation Commission currently requires:

- ✓ Identification of water wells and other water facilities in the vicinity of oil and gas facilities
- ✓ Baseline and annual water quality testing of certain water wells is within ¼ mile of an oil and gas facility
- ✓ Reporting guidelines of spills and potential impacts to water wells and other water facilities
- ✓ Beamed containment areas around chemical storage areas and product recovery areas
- ✓ Groundwater sampling and monitoring
- ✓ Site drainage reports analysis to minimize impact to area water features such as wetlands, streams and lakes.



Possible standards for the County to consider

- ✓ To reinforce the COGCC rules for water quality, the County may consider the following additional measures:
- ✓ Require storage tank for all product and waste recovery
- ✓ Require lined containment areas 1.5 times the area of tank storage
- ✓ Require separation of oil and gas operations from streams, creeks, rivers, lakes and reservoirs, with greater separation allowances if a drinking water resource
- ✓ Require stormwater controls that avoid connection to containment areas
- ✓ Require a water quality plan that includes baseline testing of water drinking wells and lakes with annual third-party monitoring and reporting of drinking water reservoirs and wells



8 – What About Transportation?

County Roads

Numbered County Roads are managed by the County and generally consist of collector and arterial roads that move larger volumes of traffic throughout the community. While these roads are intended to handle higher capacities of traffic and larger vehicles, they can become impacted as the result of traffic generated by new uses, such as a new oil and gas facilities. To maintain an acceptable level of operation of these primary roads, proposed uses generating new vehicular activity are evaluated to determine their impact to the roads in that area. Based upon the evaluation, the new use may be required to, add safety improvements or increase the capacity of roads impacted by the use.



The current system of evaluation typically requires a traffic study prepared by a professional Traffic Engineer. These Engineers model the impacts of new traffic to the existing road system in the area and suggest mitigating improvements based County Road Standards and upon results of their studies

Accessing County Roads



How and where access occurs onto a County Road requires compliance with a variety of County Engineering standards. Ensuring compliance happens throughout the development review process.

As noted above, traffic studies are often prepared to model traffic movements and impacts and such studies generally analyze how vehicles interact at access points. Factors such as traveling speed on the road and the type of vehicles entering the road could result in turn lanes and/or similar safety improvements to ensure that vehicles can move safely through the area.

Regardless of the requirements generated by a traffic study, all access points onto the County Road system require an access permit. This permitting process further reinforces safety, but also ensures that other access improvements are accounted for. Some of these improvements include drainage culverts, tracking pads, paved aprons and access gate locations.



8 – What About Transportation (cont.)?

Project Access/Haul Roads

Currently Larimer County does not have regulations defining how access/haul roads for oil and gas operations should be constructed. It is anticipated that access roads should accommodate two-way truck traffic and be design to a structural capacity that can handle the weight of fire trucks and haul trucks.

It is understood that constructing adequate access roads can be costly, but oil and gas sites during and after construction are higher risk areas. Therefore, one of the primary purposes of access road standards is to achieve adequate access for emergency response.



Potential standards for oil and gas access and haul roads:



- ✓ Requiring construction of access roads to accommodate two-way traffic
- ✓ Require access roads to meet adequate structural capacities based upon nature of use
- ✓ Require areas for turning around because these tend to be long dead-end roads
- ✓ Require paved aprons where access meets the paved County Road, with such aprons long enough to accommodate the length of vehicles using the site
- ✓ Encourage installation of waterlines and product delivery lines to reduce the use of haul trucks
- ✓ Require dust suppression plan

Other transportation related elements to consider:

- ✓ Require Capital Transportation Expansion fees to accommodate area impacts associated with new oil and gas facilities