STATUS OF SOME OF THE RECENT OIL AND GAS REGULATORY ACTIVITY BY CITY OR COUNTY

| CITY OR COUNTY | Recent Adoption of Regulations | Recent Adoption of MOUs | Temporary Moratorium Lifted | Temporary Moratorium in Place | Bans |
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| Arapahoe County | Adopted administrative review process | Administrative review process includes | . , | • | |
| , | for oil & gas applications in April 2013 | the use of MOUs with operators | | | |
| Boulder County | Adopted new regulations on December | | | | |
| | 20, 2012; new regulations include a | | | | |
| | voluntary and shortened expedited | | | | |
| | process that eliminates a public hearing | | | | |
| | before the planning & zoning | | | | |
| | commission, and a longer standard | | | | |
| | process with two public hearings; | | | | |
| | currently commissioners are considering | | | | |
| | a proposal to phase in new regulations | | | | |
| | allowing each operator to have one | | | | |
| | application processed at a time. | | | | |
| Colorado Springs | Regulations adopted December 5, 2012 | | Temporary Moratorium lifted December | | |
| - | | | 5, 2012 with the adoption of regulations | | |
| Commerce City | Adopted new regulations in July 2012 | New regulations include the use of an | | | |
| | | Extraction Agreement with operators to | | | |
| | | include Best Management Practices | | | |
| Erie | | Erie adopted MOUs with Encana & | | | |
| E. J. O. III. | | Anadarko on August 28, 2012 | Towns 7 world March 2 well file I | | |
| Fort Collins | | Adopted MOU with Prospect Energy on | Temporary 7 month Moratorium lifted | | |
| Cumpison County | | May 8, 2013 IGA with Colorado Oil and Gas | with adoption of MOU | | |
| Gunnison County | | Conservation Commission (COGCC) for | | | |
| | | county to conduct inspections and | | | |
| | | COGCC retaining enforcement authority, | | | |
| | | adopted May 11, 2012 | | | |
| Longmont | City adopted regulations on July 17, | City entered into a MOU with TOP | City imposed a 120 day moratorium on | | Citizens adopted an amendment to the |
| 201131110111 | 2012 that included a ban of drilling in | Operating Company on July 17, 2012 | accepting applications for oil & gas | | City's charter on November 6, 012 that |
| | residential zones, rules on use of multi- | operating company on July 17, 2012 | permits, which was extended to June 16, | | banned hydraulic fracturing and the |
| | well sites, directional & horizontal | | 2012 and then again through the | | storage of open pits or disposal of solid |
| | drilling, chemical reporting & setback | | adoption of regulations. | | or liquid wastes created in connection |
| | requirements, these regulations are the | | | | with hydraulic fracturing that is |
| | subject of a legal challenge by the | | | | currently subject of legal challenge by |
| | Colorado Oil and Gas Conservation | | | | the Colorado Oil and Gas Association. |
| | Commission | | | | |
| Loveland | Adopted new regulations in July 2012; | | | | |
| | new regulations include a voluntary and | | | | |
| | shortened expedited process with | | | | |
| | administrative approval, and a longer | | | | |
| | standard process with public hearings | | | | |

| | BOULDER REGULA | | LOVEL REGULA | | FORT COLLINS MOU REQUIREMENTS | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| | Expedited* | Standard | Expedited* | Standard | | | |
| Meeting | Pre-application conference in 30 days prior to application for COGCC permit Site visit at discretion director Consultant review at discretion of director Applicant can request operational conflict hearing within 10 days following initial development plan review decision and it requires 14 day advance notice and hearing with Board of County Commissions may extend the review process 45 days | Pre-application conference 30 days prior to application for COGCC permit Site visit at discretion director Consultant review at discretion of director Planning Commission notice and hearing Board of County Commissioner notice and hearing Applicant can request operational conflict hearing within 10 days following initial development plan review decision and it requires 14 day advance notice and hearing with Board of County Commissions may extend the review process 45 days | Initial meeting with city's development review team (DRT) Neighborhood meeting (can be waived if director determines duplicative of COGCC neighborhood meeting) | Initial meeting director Initial meeting with city's development review team (DRT) Neighborhood meeting Planning Commission Hearing Appeal of Planning Commission to City Council | Concept review with City staff no less than 30 days prior to submitting drilling application and, if possible, prior to site selection, to ensure compliance with MOU and to discuss site specific issues Neighborhood meeting for any new well, even on existing well pad; city schedules and coordinates company attends with written summary to be included with Local Government Designee comments to COGCC | Regular meetings with county to discuss MOU issues | |
| Notice | Notice mailed to surface owners where operations located, surface owners within 500 feet of gathering line, to owners and to physical address of all parcels within a half mile operations no less than 10 days prior to application submittal Notice includes description of site, applicant contact information, vicinity map, list of facilities, equipment, access roads and gathering lines, anticipated application submittal date, location for public comments, statement of county's right to access for plan review, statement of entities contacted on road maintenance, statement of how to receive written notice of drilling operations and county address | Notice mailed to surface owners where operations located, surface owners within 500 feet of gathering line, to owners and to physical address of all parcels within a half mile operations no less than 10 days prior to application submittal Notice includes description of site, applicant contact information, vicinity map, list of facilities, equipment, access roads and gathering lines, anticipated application submittal date, location for public comments, statement of county's right to access for plan review, statement of entities contacted on road maintenance, statement of how to receive written notice of drilling operations and county address Notice of Planning Commission hearing 14 | Neighbors Land Owners Such notices sent 15 days in advance of the neighborhood meeting | Neighbors Land Owners Such notices sent 15 days in advance of the neighborhood meeting | Pending application mailed notice to surface owner on which operation located, surface owners within 500 of a proposed gathering line; surface owners within 2,640 feet of the parcel on which the oil and gas operation is proposed an to persons representing bona fide neighborhood groups or HOA within the notice area Pending application posted notice on property Neighborhood meeting notice to same parties as those immediately indicated above Advance City website notice of commencement of drilling operations | | Prior to commencement of new drilling or completion provide notice to landowners within ½ mile Operator to provide summary of operations, access points, operational time line to town for posting on city website and for informational purposes only which operator may revise during operations |

| | BOULDER REGULA | | LOVELA REGULAT | | FORT COLLINS MOU REQUIREMENTS | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| Timing | Pre-application conference in 30 days prior to application for COGCC permit Director may require consultant review of application by County's consultant paid by applicant Applicant response to Director on application issues within 30 days Director decision within 45 days of application being deemed complete | days in advance Notice of Board of County Commissioner Hearing 14 days in advance Pre-application conference in 30 days prior to application for COGCC permit Director may require consultant review of application by County's consultant paid by applicant Applicant response to Director on application issues within 30 days Director decision within 45 days of application being deemed complete Board of County Commissioners determination on standard review or operational conflict subject to judicial review | Within 30 days of application determined to be complete by director the DRT shall complete its review and submit written report of findings and recommendation to applicant and for posting on website, applicant responds to DRT recommendation in 30 days Neighborhood meeting within 45 days of directors determination application complete 15 days after neighborhood meeting for public to submit comments Director negotiates with applicant after receipt of public and DRT comments for 10 days Director decision in 15 days Director's decision appealable by applicant or party in interest to district court | Application completeness review meeting within 15 days of request Written comments of staff within 10 days of meeting Applicant response and filing of application within 3 months Notification of application deficiencies within 15 days and continue until all issues resolved Review by internal team within 30 days of director determination that application is complete Neighborhood meeting within 45 days of director determination that application is complete Planning Commission Public Hearing within 45 days of internal team determination Planning commission determination within 30 days of hearing Appeal of Planning Commission decision by applicant or part in interest within 10 days of decision | Concept review 30 days prior to drilling Initial notice of concept review no more than 10 days after concept review meeting after concept review meeting | | |
| Air Quality ** | The applicant shall submit to the county manufacture test and other data demonstrative a 98% efficiency Compliance with Colorado Air Quality Control Program and county fugitive dust regulations Air quality control plan that includes the following: All continuously operated equipment, including, | Shall capture and control vapors to 98% efficiency to the maximum extent practicable and submit to county test and other data; use of flares in accordance with code No significant degradation of air quality and in compliance with COGCC and DPHE Provide leak detection and control program using most effect | All continuously operated equipment shall route vapors to a capture and control device with a 98% destruction efficiency; operator to submit manufacturer's data to show efficiency and such device shall be installed and maintained in accordance with manufacturer's specs Compliance with EPA, CDPHE & COGCC | | No uncontrolled gas vapors and vapor capture equipment shall operate at 98% efficiency Flare during productions at 98% or higher VOC destruction efficiency with no visible emissions and flame present at all time No venting of gas except per COGCC Green Completion Practices Green completions requiring gas captured at well head and not releasing it into | Closed loop pitless system for containment and/or recycling of all drilling, completion, flowback and produced fluids is preferred Subject to county approval would allow unlined pits when betonite or clay additive is used in drilling and single- or multi – well water storage pits in order to | Operator to utilize closed-loop systems for drilling and completion operations to minimize the need for earthen pits Operator to utilize pressure separation in conjunction with a vapor recovery unity (VRU) for new wells drilled. Operator may remove the VRU system at such time as operator determines that the VRU |

| BOULDER C REGULAT | | LOVELANI REGULATIO | | FORT COLLINS MOU REQUIREMENTS | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| storage vessels, tanks, | technology | requirements plus | | atmosphere or flaring it off | minimize the transport | system is no longer |
| separators, pneumatic | Submit annual reports to | Combustions devices with | | Well shall be drilled, | of water and promote | necessary due to |
| pumps, dehydrator and | director certifying | flares that comply with | | completed and operated using | recycling | reduced emission |
| compressors shall route | compliance with air | federal law, a pilot flame | | a closed loop pitless system | | recoveries and/or |
| natural gas and VOC | quality requirements and | continuously monitored and recorded and | | for containment and/or | | efficiencies, but no earlier than one year |
| vapors to a capture and control device with at | documenting non- compliance | and recorded and automatic ignition if flare is | | recycling of all drilling, completion, flowback and | | after the new well is |
| least a 98% VOC | compliance | extinguished | | produced fluids | | drilled |
| destruction efficiency, to | | Leak detection repair plan | | Compliance with CDPHE | | armea |
| the maximum extent | | incorporated in local | | regulations and all state and | | |
| practicable | | permit | | federal regulations on ozone, | | |
| Any flare, auto ignition | | No or low bleed pneumatic | | methane and hazardous air | | |
| system, recorder, vapor | | controllers, where available | | pollutants | | |
| recovery device or other | | In well completion stage, | | General duty to minimize | | |
| equipment used to meet | | operator to minimize route | | emissions including | | |
| the 98% VOC destruction | | recovered gas to pipelines | | development plan to | | |
| or control efficiency | | or capture the recovered | | consolidate product treatment | | |
| requirement shall be | | gas to a combustion device, | | and storage facilities, | | |
| installed, calibrated, | | maximize resource | | centralize compression | | |
| operated and maintained | | recovery and minimize | | facilities, liquids gathering an | | |
| in accordance with | | releases to the atmosphere | | water delivery systems, | | |
| manufacturer's | | during flowback, and | | telemetric control and | | |
| instructions | | maintain a log for each well | | monitoring systems, pipeline | | |
| Green completion for | | completion operation in | | infrastructure | | |
| wells with hydraulic | | accordance with EPA | | In undeveloped future drilling | | |
| fracturing including re- | | requirements | | area use vapor recovery unit | | |
| inject recovered liquids | | Operator to use Best | | for new wells, which may be | | |
| into a well and route recovered gas into a flow | | Management Practices | | removed after 1 year or when | | |
| line or collection system | | (BMP) during well maintenance and | | not necessary to reduce emission recoveries | | |
| with no direct release to | | blowdowns to minimize or | | During well completion the | | |
| the atmosphere, if | | eliminate venting | | capture and use of natural gas | | |
| compliance with the prior | | Gas produced shall be | | is preferred over flaring | | |
| is infeasible, applicant | | capture and to max extent | | Flaring shall be continuously | | |
| must capture and direct | | not flared or vented, | | monitored on site per COGCC | | |
| emissions to a completion | | except for safety | | rules | | |
| combustion device | | Operators shall replace | | Develop and maintain a lead | | |
| equipped with a reliable | | rod-packing from | | detection and repair program | | |
| continuous ignition source | | compressors the earlier of | | per EPA methods | | |
| All flares shall be fired | | every 26,000 hours of | | A forward-looking infrared | | |
| with natural gas, designed | | operation or 36 months | | camera shall be used as the | | |
| to ensure no visible | | Annual report to planning | | preferred implementation | | |
| emissions except for | | on air emissions including | | method | | |
| periods not to exceed 5 | | inspection dates for leak | | Company to notify city when | | |
| minutes during any 2 | | and repair plan, record of | | camera used in event City | | |
| consecutive hours, | | expected and actual air | | wishes to observe | | |
| contain an automatic flare | | emissions, emission data | | Company and city shall split | | |
| ignition system with pilot flame monitored, if pilot | | during well completion | | the costs for a one time | | |
| goes out a telemetry or | | activities, date of | | baseline sampling and analysis | | |
| visible alarm must be in | | maintenance activities that | | or air quality | | |
| place, if using an electric | | minimize air emissions, dates of well maintenance, | | The company to complete air | | |
| arc ignition must pulse | | if venting used explanation | | quality sampling during well | | |
| and be monitored | | of why BMP could not be | | completion | | |
| continuously | | used, date rod-packing | | Periodic air monitoring City may require additional air | | |
| Applicant to develop a | | replaced | | City may require additional air manitoring peeded to respond | | |
| leak detection and | | | | monitoring needed to respond | | |
| | | | | to emergency events such as | | |

| BOULDER COUNTY REGULATIONS | | LOVE REGULA | | FORT COLLINS MOU REQUIREMENTS | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| component repair program using most effective performance technologies and practices • Well shall be drilled, completed and operated using a closed loop pitless system for containment and/or recycling of all drilling, completion, flowback and produced fluids • Non-flammable gas may be vented temporarily until flammable gas is encountered where capture or combustion is not feasible • Operation must maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery operation • For wildcat or delineation wells in a location without a pipeline must have combustion device with continuous ignition • Applicant must notify county at least 2 days prior to commencement of completion including well number, latitude and longitude to accuracy of 5 decimals and planned date of drilling and completion/flowback • Gas produced during production must be captured and not flared or vented to the maximum extent practicable • Applicant to maintain a daily log for each well completion operation at each wellhead and contain the records specified in 40 C.F.R. section 60.5420(c)(1)(iii) • Applicant shall use no bleed pneumatic controller where available for the proposed application • Operational plan shall | | | | spill, process upsets or accidental released or in response to odor complaints Company shall respond to air quality action day advisories by CDPHE for front range area by implements air emission reduction measures like minimize vehicle and engine idling, reducing truck traffic, delaying vehicle refueling, suspend fossil fuel powered ancillary equipment or postpone construction activities Uncontrolled venting prohibited Exhaust from engines, motors and mechanized equipment vented away from closest residences Minimize dust from onsite activities so no visible dust emissions form access roads or site to extent practical given wind No produced water or other process fluid to be used for dust suppression Avoid dust suppression activities within 300 feet of high water mark of any waterbody, unless dust suppressant is water Material safety data sheet for any chemical based dust suppressant to city prior to use | | |

| | BOULDER COUNTY REGULATIONS | | LOVELA REGULAT | | | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| Water Quality** | require technologies or practices which minimize or eliminate natural gas emissions during well maintenance or blowdowns and minimize or eliminate emissions or spills during maintenance of pipelines • Applicant shall submit annual reports to county certifying compliance with these air quality requirements and documenting any periods of noncompliance, including date, duration and compliance plan, certified as to truth accuracy and completeness • Operator to implement plan that meets all the requirements below • Assessment and monitoring of plugged and abandoned wells within ¼ mile of projected track of borehole of a proposed well • Operator shall asses the risk of leaking gas or water to the ground surface or subsurface water resources taking into account plugging and cementing procedures described in COGCC report on plugged and abandoned wells • Operator shall contact each surface owner who has an abandoned well on their property to seek permission to access the property in order to test the abandoned well; if permission is not received in 30 days then operator not required to test the well • Test of abandoned well is soil gas survey prior to production of proposed well and 1 year thereafter for 3 years after | No significant degradation of surface or groundwater by operations may use methods including provide county with information it gives COGCC to comply with water quality protection standards of rules 317(B), 910 and other applicable Comply with COGCC rules on sampling of water wells and provide county test results Notice to all water well owners in ¼ mile prior to frack and in notice state that county advises well owners to establish base line water well test in conformance with county code prior to fracking Provide plans of down hole construction details like casing and cementing design and inform county how plans prevents significant degradation of surface and drinking water aquifers | | COGCC groundwater sampling monitoring Rule 318.A.c Operator to identify water source and amount of water to be used with disposal of water used on site reported to the city along with haul routes and approximate number of vehicles When operationally feasible operator shall minimize adverse impacts caused by the delivery of water to the operation | Water quality monitoring plan to comply with COGCC Rule 609, which requires pre- and post-drilling testing and sampling of all available water sources that owner has given consent for sampling and testing and consented to having the sample data made available to the public with a cap of four water sources within ½ mil radius of well site, with water sources including registered water wells, permitted or adjudicated springs and monitoring wells Company agrees to the following requirements beyond COGCC regulations: analyzing for dissolved metals and sampling intervals at 1, 3 and 6 years, with results to be shared with COGCC, City and landowner | Water stored in pits must be fresh water or brine water free of all visible oil within 24 hours and meeting certain dissolved solid content requirements Skimming, settling, percolations, evaporation and any type of netted pits are discouraged but may be approved on a case by case basis Baseline soil sample of pits and analysis may be required if leaks or spills Multi well pits lined per COGCC standards If multi-well pits I use for over 2 years then double lined with leak detection and fluid circulated in four phase separator follow COGCC pit closure rules Additional fencing of pits may be required pre or post construction if adversely impacting residences, water wells or wildlife to comply with COGCC | |

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| Setbacks** | interpreted to impute or create liability for constituents and concentrations and admissibility in legal proceedings subject to rules of evidence FOR NEW WELL PADS: • Well head, pumping units, tanks and treaters are at least 1000 feet from occupied structure • Well head, pumping units, tanks and treaters are at least 500 feet from any surface water body including ditches, reservoirs, domestic or commercial water wells • Well head, pumping units, tanks and treaters are not located in a platted subdivision, except outlots of non-urban PUDs • Well head, pumping units, tanks and treaters are not located in a high hazard geologic area, floodway or natural communities, natural landmarks and natural areas, including riparian corridors or critical wildlife habitat FOR EXISTING WELL PADS: • Well head, pumping units, tanks and treaters are at least 500 feet from occupied structure • Well head, pumping units, tanks and treaters are at least 500 feet from any surface water body including ditches, reservoirs, and at least 500 feet from any domestic or commercial water irrigation wells | IONS | REGULA | TIONS | • Intent of company to maximize setbacks fro occupied building and residences beyond the setbacks required by COGCC to extent feasible and practicable | All pits within ¼ mile of residence or water well discouraged and may have additional fencing requirements | Operator to maximize equipment and wellhead setbacks from occupied buildings and residences to extent feasible and practicable as determined by operator |
| | least 300 feet from any surface water body including ditches, reservoirs, and at least 500 feet from any domestic or commercial | | | | | | |

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| Plugging and Abandoning Road Impact | Comply with COGCC rules on plugging and abandonment and provided county with survey coordinates of abandoned well and leave onsite permanent marker transportation plan designed to ensure public | Comply with COGCC rules on plugging and abandonment and provided county with survey coordinates of abandoned well and leave onsite permanent marker transportation plan designed to ensure | | COGCC rule 319 Copies of COGCC report to city Advance notification to fire dept surveyed coordinate of location to planning and marker notice of pipeline abandon to planning Remove chains before entering city | Remove chains before entering city | | Operator to provide traffic management plan |
| | safety and maintain quality of life use of private roads wherever available transportation fees paid prior to issuance of construction permit access points on the site and access points to public roads to be built and maintained in accordance with specifications and standards as defined in the Transportation Standards minimize impact to county infrastructure and costs necessitate by operations responsibility of applicant; if applicant disagrees with infrastructure costs may propose alternative route and applicant may perform traffic engineering study to challenge costs obtain all transportation permits including oversize and overweight as well as CDOT permits Vehicle tracking control practices used to control sediment including road and pad design to minimize rutting and tracking and traction chains removed before entering county road | public safety and maintain quality of life use of private roads wherever available transportation fees paid prior to issuance of construction permit access points on the site and access points to public roads to be built and maintained in accordance with specifications and standards as defined in the Transportation Standards minimize impact to county infrastructure and costs necessitate by operations responsibility of applicant; if applicant disagrees with infrastructure costs may propose alternative route and applicant may perform traffic engineering study to challenge costs obtain all transportation permits including oversize and overweight as well as CDOT permits Vehicle tracking control practices used to control sediment including road and pad design to minimize rutting and tracking and traction chains removed before entering county road | | measures to prevent must tracking on public streets access plan, description of vehicles and weight; bonding or indemnify and insurance operator provide city \$25,000 performance security for each well to repair damages to city's public rights of way caused by operator's use access roads to be 20 feet wide with unobstructed overhead clearance of 13 feet and 6 inches thick compacted to 95% with grades to drain off of roadway | Prohibition against mud tracking onto streets and requirement to clean any streets of such Transportation and circulation plan for drilling operations on public streets and roads including weight of vehicle, number of trips etc. at concept review | | and site preparation, mobilization and demobilization plan to town and for informational purposes only which operator may revise during operations |

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| Hydraulic Fracturing** | | Identification of all products used or stored on site, including data sheets in emergency response plan (see below) | | COGCC regulations 205.A file chemical disclosure with fire dept same time as COGCC | file name of chemicals, volume, storage, containment and disposal methods for all drilling and completion chemicals used on site; Fracture chemicals uploaded on Frac Focus; No chemicals, flowback from fracturing or produced water to be stored on site | | |
| Berms | | | | | Steel-rim berms required around tanks and separators at new well pads; to be inspected regularly and maintained Ignitions sources installed inside secondary containment area per API Recommended Practices RP-D16 Containment berms shall be constructed of steel rings and installed to prevent leakage and resist degradation Secondary containment tanks shall be constructed with synthetic or engineered liners that contain all primary containment vessels and flowlines and is mechanically connected to the steal ring to prevent leakage For locations within 500 feet and up gradient of surface water body, tertiary containment, such as earthen berm is required around production facilities | Berm inspected by operator on weekly basis for discharge and within 48 hours of a precipitation event | Operator to utilize steel rim berms around tanks and separators instead of sand or soil berms, unless otherwise requested by surface owner or because of operational reasons |
| Pipelines Flowlines | Newly constructed or substantially modified pipelines on site must comply with additional provisions at Article 4-514(e)(5)(a)-(g); and comply with Article 4-514(E) if off site Not required to be located on a building lot or comply with lot size requirement for applicable district Flow lines, gathering lines and transmission lines to be buried and sited a minimum of fifty (50) feet away from residential, commercial and industrial buildings, as well as high- | Newly constructed or substantially modified pipelines on site must comply with additional provisions at Article 4-514(e)(5)(a)-(f); and comply with Article 4-514(E) if off site Not required to be located on a building lot or comply with lot size requirement for applicable district Flow lines, gathering lines and transmission lines to be buried and sited a minimum of fifty (50) feet away from residential, commercial and industrial buildings, | •New pipelines shall be sited 50 feet from buildings and high water mark of surface water body, aligned with roads to max extent and minimize surface impacts to reduce habitat disturbance, to max extent share existing pipeline right of way, and use boring technology when crossing water or wetlands to minimize negative impacts to channel, bank and riparian areas. | | To maximum extent reasonable all flow lines, gathering lines and transmission line shall be sited a minimum of 50 feet from residential, commercial and industrial building and from high-water mark of any surface water body to be measured from nearest edge of pipeline To maximum extent feasible pipelines shall be aligned with established roads in order to minimize surface impacts and reduce habitat fragmentation and disturbance To maximum extent feasible operator to share pipelines and minimize negative | | |

| | BOULDER (| COUNTY | | LAND | FORT COLLINS | ARAPAHOE COUNTY | ERIE |
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| Emergency Response Plan | Operations shall not cause unreasonable risks of emergency situations such as explosions, fires, gas, oil or water pipeline leaks, ruptures, hydrogen sulfide or other toxic gas or fluid emissions or hazardous material vehicle accidents or spills Operator shall implement an emergency preparedness plan for each operations site which shall be approved by the sheriff, the office of emergency management, and the fire district and updated on an annual basis or as conditions change i.e., ownership change Emergency plan to include 24 hour contacts As-built facilities map for county's GIS system including sizes and depths of all gathering and transmission lines and associated Surface operations and functions and transportation routes with pipeline information to be held confidentially and only used in the event of an emergency Detailed information about potential emergencies Report all spills outside of containment area or which have the potential to leave the facility ID Evacuation routes and hospitals Project specific emergency plan for any project that involves drilling zones of hydrogen sulfide gas Operator obligated to reimburse emergency response service providers the costs of any emergency Detailed information that | Operations shall not cause unreasonable risks of emergency situations such as explosions, fires, gas, oil or water pipeline leaks, ruptures, hydrogen sulfide or other toxic gas or fluid emissions or hazardous material vehicle accidents or spills Operator shall implement an emergency preparedness plan for each operations site which shall be approved by the sheriff, the office of emergency management, and the fire district and updated on an annual basis or as conditions change i.e., ownership change Emergency plan to include 24 hour contacts As-built facilities map for county's GIS system including sizes and depths of all gathering and transmission lines and associated Surface operations and functions and transportation routes with pipeline information to be held confidentially and only used in the event of an emergency Detailed information about potential emergencies Report all spills outside of containment area or which have the potential to leave the facility ID Evacuation routes and hospitals Project specific emergency plan for any project that involves drilling zones of hydrogen sulfide gas Operator obligated to reimburse emergency response service providers the costs of | | All reasonable measures to assure no unreasonable risk for explosions, fires, leaks, emissions, spills Plan to include contacts, map ID of pipelines and valves, report spill to fire dept & planning list of evac routes and hospitals project specific plan for drilling operator reimbursement of emergency response service detail info on adequate personnel, supplies and funding for emergency response operator to reimburse emergency response costs to city agency | Plan to include 24 hour emergency contacts, map ID of facilities, gathering and transmission lines and equipment, isolations valves, surface operations and their functions, transportation routes suitable for input in city's GIS system; list of evac routes and hospitals information on potential emergencies associated with operations reporting plan to emergency dispatch for all spills outside containment area that have potential to leave facility project specific emergency plan for any project that involves drilling or penetrating zones of hydrogen sulfide gas Operator obligated to reimburse emergency response service providers the costs of any emergency Detailed information that the applicant has the financial ability to implement emergency response immediately and at all times Identification of all products used and stored or transported to the site including data sheets Plan by which operator engages neighbors about the risks and benefits of the | Operator to provide county and all emergency services providers willing to serve well site an emergency response plan to address all potential emergencies | |

| | BOULDER COUNTY REGULATIONS | | LOVEL REGULA | | FORT COLLINS MOU REQUIREMENTS | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| | Expedited* | Standard | Expedited* | Standard | | | |
| Inspection | the applicant has the financial ability to implement emergency response immediately and at all times • Identification of all products used and stored or transported to the site including material safety data sheets • Plan by which operator engages neighbors about the risks and benefits of the operations | any emergency Detailed information that the applicant has the financial ability to implement emergency response immediately and at all times Identification of all products used and stored or transported to the site including material safety data sheets Plan by which operator engages neighbors about the risks and benefits of the operations County has the right to enter any site under approved development plan provided that twenty-four (24) hours prior notice is provided to applicant's designated contact person Each approved plan shall contain a statement that "Applicant hereby consents to allow the County the right to inspection of this approved operation provided the County contacts the Applicant with twenty-four (24) hours prior notice of such inspection." Inspections shall be coordinate to ensure Applicant presence on site and conducted in accordance with all applicable Applicant safety requirements | | Operations may be inspected by city inspectors limited to those matters directly enforceable by the city and city inspector may refer state issues to the COGCC City right to enter operations area after notice to operator and opportunity for operator to be present City's enforcement limited to those conditions that are not in operational conflict with state law or regulations and any enhanced standards agreed to by the operator through the administrative review process | City has right to inspect company's operations during business hours upon giving 24 hour advance written notice to all existing and new wells; City acknowledges that nothing in MOU grants City authority to asses fees for inspections of operations Output Description: | Operator agrees to allow the county to access all facilities for inspections, provided county personnel in appropriate protections gear and follows operator's safety rules, including pit locations prior to construction County reserves right to report non-compliance issues | |
| Venting/ Discharge | open-ended discharge valves secured exhaust from engines and other mechanized equipment vented up and away from closest occupied structure | open-ended discharge valves secured exhaust from engines and other mechanized equipment vented up and away from closets occupied structure | | | Open-ended discharge valves on all storage tanks, pipelines and other containers and placed with interior of secondary containment tank No discharge of fluids as required by closed looped and green completion provisions | | |

| | BOULDER COUNTY REGULATIONS | | LOVEL REGULA | | FORT COLLINS MOU REQUIREMENTS | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| | Expedited* | Standard | Expedited* | Standard | \ | • | , |
| Spills | Comply with all state and federal laws | Comply with all state and federal laws | | Comply with all state and federal laws | Spills reported in accordance with state and federal laws If spill impacts surface water or water well, company to immediately notify affected or potentially affected owner and notify the city within 24 hours | Any spill or release that is reportable to COGCC simultaneously reported to county | |
| Water Use | | | | identify water sources and disposal methods minimize truck use and local supplier where economically feasible | | identify water sources and disposal methods Comply with CDPHE standards Where feasible, temporary surface water lines are encouraged Operator may utilize county road right of way and drainage culverts where practicable for temporary water lines | |
| Access Roads | temporary access roads reclaimed and revegetated in 60 days after discontinued use | temporary access roads reclaimed and revegetated in 60 days after discontinued use • | | 20 feet wide graded & graveled 13' overhead' clearance 6 inch base 95% compact class 6 aggregate grades drain away road and cross-drainage to waterway include culvert pipe | temporary access roads reclaimed and re-vegetated | operator agrees to construct access road to support 75,000 pounds to accommodate emergency response vehicles roads at least sixteen feet wide and 4 inch base best efforts to improve inadequate access to existing tank batteries spot inspections of access roads by county or emergency response agencies operator to apply for permit to public roads which may include access location requirements, pre and post inspection of roadways, collateral or bond to insure damage, dust control plan, road maintenance agreement and payment of all applicable fees operator agrees to use reasonable effort to minimize heavy truck traffic within | |

| | BOULDER COUNTY REGULATIONS | | | ELAND ATIONS | FORT COLLINS MOU REQUIREMENTS | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| | Expedited* | Standard | Expedited* | Standard | | | 11 |
| Stormwater quality and dust control Cultural, Historic, Natural, Recreational or Scenic Resources | Minimize dust associated with traffic and operations so no visible dust emissions to the extent practical given wind and comply with county best management practices Stormwater control plan with most effective techniques and best management practices | Minimize dust associated with traffic and operations so no visible dust emissions to the extent practical given wind and comply with county best management practices Stormwater control plan with most effective techniques and best management practices No significant degradation of cultural or historic or archaeological sites eligible for landmarking No significant degradation to identified natural areas including plants, riparian or critical wildlife habitat or to recreational activities or scenic attributes and rural character to include buffering, maintaining natural screening, siting criteria, and low profile tanks | | COGCC rule 805 No significant degradation of cultural or historic sites | Stormwater control plan to comply with city storm criteria and erosion control If significant archaeological site discovered report to city Company responsible for mitigating disturbance of historical or cultural property through a data recovery plan approved by the City Ecological characterization study if any new well is within 500 feet of a natural habitat or feature with mitigation so no net resource loss Installation and operation of operations shall not cause significant degradation to the quality o and quantity of recreational activities in the city, including locating operations away from trails and property used for | neighborhoods between 9 pm and 6 am and work with school district to minimize traffic conflicts with school buses • permit all vehicles as required by law | Operator to provide plan for noise, light and dust mitigations to the extent feasible and practicable for informational purposes only which operator may revise during operations |
| Wildlife Protection & Wetlands & | | No significant degradation to identified natural areas including plants riparian or critical | | COGCC 1200 series rules | recreational purposes and using existing well pads | | |
| Drainage | | plants, riparian or critical wildlife habitat No significant degradation of wetlands and not alter historic drainage patterns or flow rates with mitigation to compensate for drainage impacts | | | | | |

| | BOULDER REGUL/ | | LOVEL REGULA | | FORT COLLINS MOU REQUIREMENTS | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| | Expedited* | Standard | Expedited* | Standard | MOO NEQOMEMENTS | MOS NEQOMENTS | MOS REGOMENTS |
| Reclamation & Abandonment | Local permit shall include any COGCC required interim and final reclamation procedures | Local permit shall include any COGCC required interim and final reclamation procedures | | COGCC 1000 series rules interim and final reclaim plan | | | Operator to provide plan for reclamation and re- vegetation of site and final reclamation of the site for informational purposes only which operator may revise during operations |
| Noise | Equipment must comply with maximum permissible noise levels of 25-12-103 CRS | Equipment must comply with maximum permissible noise levels of 25-12-103 CRS | | COGCC rule 802 Exhaust vented up away from closest residence additional requirements based on location which may include insulation for equip, landscaping, solid wall or fence, plan on hours of noise and lowering level of pumps or tanks | electric powered engines used to mitigate noise and reduce emissions when feasible noise mitigation measures along any edge of operations site if site is next to residential or zoned for future residential compliance with COGCC rule submittal of noise mitigation study to demonstrate noise will be decreased to maximum extent feasible | operator to provide the local government designee contact information for noise complaints 24 hours a day and post that information on a sign at the entrance to operations area | Operator to provide plan for noise, light and dust mitigations to the extent feasible and practicable for informational purposes only which operator may revise during operations |
| Fencing | Onsite fencing basic, two rung fence of iron pipe around well head unless safety or agricultural concerns require additional fencing | Onsite fencing basic, two rung fence of iron pipe around well head unless safety or agricultural concerns require additional fencing | | Permanent 6 feet fence that is solid, opaque and masonry, stucco steel or other similar materials, but chain link allowed if for safety | Permanent perimeter fencing around production equipment Fencing to be visually interesting and landscaping may be used fro screening | | |
| Land Disturbance Standards | standard plus minimal size to satisfy present and future operations needs operations must be compatible with topography and existing vegetation minimize disturbance with wetlands minimize amount of cut and fill | to maximum extent possible operations may not be located in geologic hazard area minimum pad and equipment size necessary to accommodate operations minimize cut &fill share existing infrastructure and minimize new facilities to max extent feasible drought tolerant landscape with irrigation plan for first two years and permanent irrigation if practicable written description of existing vegetation for baseline for revegetation on final reclaim or abandonment operations sited so compatible with surrounding land use to max extent possible using the following | | minimum pad and equipment size necessary to accommodate operations minimize cut &fill share existing infrastructure and minimize new facilities to max extent feasible drought tolerant landscape with irrigation plan for first two years and permanent irrigation if practicable written description of existing vegetation for baseline for revegetation on final reclaim or abandonment -increase buffer when within 100 feet public street | | | |

| | BOULDER COUNTY REGULATIONS | | LOVEL REGULA | | FORT COLLINS MOU REQUIREMENTS | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| | Expedited* | Standard | Expedited* | Standard | | | |
| | | techniques: as far as possible for surrounding land use, natural features, consideration of prevailing weather patterns and avoid hilltops and ridges | | | | | |
| Lighting | except during drilling down-lighting with shields Plan indicating all lighting on site and fixtures | except during drilling down-lighting with shields Plan indicating all lighting on site and fixtures | | COGCC rule 803 except during drilling down-lighting with shields Plan indicating all lighting on site and fixtures | Except during drilling, completion and other operational activities requiring additional lighting, down lighting is requirement meaning all bulbs must be fully shielded to prevent light emissions above a horizontal plane drawn from the bottom of the fixture A lighting plan shall be developed to establish compliance | Lighting at operations area directed downward and internally and temporary lighting to conform to COGCC rules | Operator to provide plan for noise, light and dust mitigations to the extent feasible and practicable for informational purposes only which operator may revise during operations |
| Visual Mitigation | facilities painted in uniform, non-contracting, non-reflective color | facilities painted in uniform, non-contracting, non-reflective color operations should be buffered from visual areas (i.e., roads, property lines and residences) by landscaping the perimeter of the site operations should be located in areas that maximize the amount of natural screening operations should minimize the removal of and damage to existing trees and vegetation; vegetation should be feathered and thinned or moved Compatibility siting criteria of Section 12-703(J) should be used to prevent degradation of scenic attributes and rural character Use of low profile tanks and less intrusive equipment Operations should be located as far as possible from surrounding land uses Operations should be | tree & shrub landscape buffer yard around entire production site at a # of plants per lineal feet | paint uniform & blend to surround to max extent possible away from prominent natural features, avoid crossing hills & ridges, @ base of slopes access roads aligned existing grades may require landscape, cut and fill to natural forms and natural screen | • facilities painted in uniform, non-contracting, non-reflective color to blend with landscape and land rather than the sky • facilities painted in uniform, non-contracting, non-reflective color to blend with landscape and land rather than the sky | facilities painted in uniform, non-contracting, non-reflective color that is slightly darker to blend with landscape and land rather than the sky | |

| | BOULDER COUNTY REGULATIONS | | LOVEL/ REGULA | | FORT COLLINS MOU REQUIREMENTS | ARAPAHOE COUNTY MOU REQUIREMENTS | ERIE MOU REQUIREMENTS |
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| | | sited away from prominent natural features, distinctive rock formations, land forms, vegetative patters, river and streams and other landmarks or visual or scenic resources etc. | | | | | |
| Permanent Equipment | all permanent equipment electrified from power grid or renewal resources unless county determines infeasible | all permanent equipment electrified from power grid or renewal resources unless county determines infeasible | | | | | |
| Equipment Removal | remove equipment in 30 days; no permanent storage of equipment at well site | remove equipment in 30 days; no permanent storage of equipment at well site | | remove equipment in 30 days; no permanent storage of equipment at well site | all equipment used for drilling, re-completion and maintenance removed within 30 days of completion of work unless otherwise agreed to by surface owner and no permanent storage of equipment on well pad sites | | |
| Weed Control | comply with COGCC standard on weed control | comply with COGCC standard on weed control | | land within 25 feet of any tank, pit or structure free of dried weeds, grass or rubbish Comply with all applicable law, including city's weed control ordinance | All land within 25 feet of tank or other structure containing flammable or combustible materials kept free of dry weeds, grass or rubbish and conform with fire code Company responsible for weed control | Operator responsible for noxious weed control on any facility from drilling through closure | |
| Miscellaneous | all mechanized equipment anchored to minimize transmission of vibrations through the ground copies of local, state and federal permits provided to land use department no burning of trash at operations area routine maintenance of vehicles or mobile machinery not performed within 300 feet of any water body Remove debris methods approved by county approved plan includes all operator verbal representations of record | all mechanized equipment anchored to minimize transmission of vibrations through the ground copies of local, state and federal permits provided to land use department no burning of trash at operations area routine maintenance of vehicles or mobile machinery not performed within 300 feet of any water body Remove debris methods approved by county approved plan includes all operator verbal representations of record | COGCC mitigation requirements of rule 604.c Meet municipal code sound limitations and provide noise mitigation study re: same and construct a noise screen along the edge of the facility between the facility and existing residential or zoned residential Applicant must request any requirements not required by COGCC to be added to COGCC permit as requirements | use of electric service if available and gas or diesel generators only temporary Maintain equipment record flowline locations Remove debris comply with sign code reclaim temporary access roads comply all applicable law, including city's street, electric, water, trash & building & flood plain permit code approved plan includes all operator verbal representations of record 15 day advance notice of seismic operations to fire dept no housing on site | company exempt from the ban as long as operations are in accordance with MOU all mechanized equipment anchored to resist collapse, lateral movement or flotation; identify buried anchors No open burning at the operations site Remove debris from operations area for proper disposal and maintain site free of debris No burning of materials onsite City at its discretion may conduct soil gas monitoring to assess casing integrity, typically within 90 days of well completion and with prior notification to company Trailer or office is permitted as an accessory use during drilling and completion | Operator to obtain erosion permit where necessary County requirements made part of COGCC permit requirements | Applicant must request MOU requirements be added to COGCC permit as requirements Provide updates of all plans required by MOU to Town |

| BOULDER COUNTY REGULATIONS | | LOVELA REGULA | | FORT COLLINS ARAPAHOE COUNTY MOU REQUIREMENTS MOU REQUIREMENTS | | ERIE MOU REQUIREMENTS |
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| Expedited* | Standard | Expedited* | Standard | | | |
| Expedited | | Expedited | applications fees operator to pay costs of city's consultant to review application operator to procure comprehensive general liability insurance insuring operator and naming the city as additional insured for personal or bodily injury arising out of operators permitted operations in amount of \$1 million per | | | |

^{*} Other than meeting, timing and notice requirements, the expedited requirements are in addition to the standard requirements

^{**} Issue from Town Hall Meeting