



**PLANNING & DEVELOPMENT DEPARTMENT MEMORANDUM
#54-2019**

DATE: October 28, 2019

TO: Honorable Mayor Antonio B. Esquibel and City Council Members

THROUGH: Heather Geyer, City Manager 

FROM: Brook Svoboda, Director of Planning and Development 
Corey Hoffmann, City Attorney
Matthew Sura, Special Legal Counsel

SUBJECT: CB-1937 – Oil and Gas Regulations Amendment

PURPOSE

First Reading of CB-1937, an ordinance for the adoption of updates to the Oil and Gas Regulations section of the Unified Development Ordinance (UDO).

BACKGROUND

In the spring of 2019, the Colorado State Legislative Assembly approved Senate Bill 19-181, titled "Protecting Public Welfare in Conduct of Oil and Gas Operations." This bill acted to reform the Colorado Oil and Gas Conservation Commission's mission to protect public health and the environment, give local government clear regulatory authority, and reform forced pooling laws. As a result of this state legislative action, the City retained special counsel Matt Sura to review of the City's current oil and gas regulations within the Unified Development Ordinance (UDO), and the proposed ordinance suggests revisions to the UDO.

The proposed Oil and Gas Regulations Amendment was recommended for approval by Planning Commission at their October 1, 2019 meeting; the approving resolution is included as Attachment 1. The Planning Commission staff report is included as Attachment 2 and provides additional detail on the amendment and adoption process. An Oil and Gas Best Management Practices (BMP) document is proposed to be adopted in conjunction with the Code revisions and is included as Attachment 3. The BMP document will serve as expert guidance for any Oil and Gas Permit application review. The document will be posted on the City's website and allows the City Council to update the document by Resolution "as necessary to reflect changes to technology, state regulations, and industry practices."

The presentation delivered to Planning Commission at their October, 1, 2019 meeting is included as Attachment 4 and provides a detailed overview of the proposed Code amendment.

STAFF RECOMMENDATION

Attached to this memorandum is CB-1937, which is being presented on first reading. Staff is recommending that City Council approve this request on first reading and schedule the item for public hearing and second reading on October 28, 2019.

BUDGET/TIME IMPLICATIONS

There are no anticipated direct budgetary impacts from this item.

STAFF REFERENCE

If City Council members have any comments or questions, they may contact Brook Svoboda, Director of Planning and Development, at 303.450.8937 or bsvoboda@northglenn.org.

ATTACHMENTS

1. Planning Commission Resolution #2019-09
2. Planning Commission Staff Report for the October 1, 2019 Meeting
3. Oil & Gas Best Management Practices (to be adopted by separate Resolution)
4. Presentation

CB-1937 – Oil and Gas Regulations Amendment

**RESOLUTION 2019-09
NORTHGLENN PLANNING COMMISSION**

**A RESOLUTION PROVIDING A FAVORABLE RECOMMENDATION TO
THE CITY COUNCIL FOR APPROVAL OF CB-1937 – OIL AND GAS
REGULATIONS UPDATE TO THE UNIFIED DEVELOPMENT
ORDINANCE**

WHEREAS, Northglenn Ordinance 11-6-4(c) requires that all proposed amendments shall be referred to the Planning Commission for study, consideration, and recommendation prior to final action by Council; and

WHEREAS, the Planning Commission has found that the application satisfies the applicable criteria for Unified Development Ordinance Amendments under 11-6-4(c)(3)(D)(iii); and

WHEREAS, the Northglenn Planning Commission therefore desires to provide a recommendation to the City Council on the Unified Development Ordinance Amendment as required by law; and

BE IT RESOLVED BY THE PLANNING COMMISSION OF THE CITY OF NORTHGLENN, COLORADO, THAT:


Section 1. The City of Northglenn Planning Commission hereby provides a favorable recommendation to the City Council for approval of CB-1937.

DATED this 1ST day of October, 2019



Sonia Di Carlo
Planning Commission Chair

ATTEST:



Rebecca Smith, AICP
Secretary



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PLANNING AND DEVELOPMENT DEPARTMENT

MEMORANDUM

DATE: October 1, 2019
TO: Planning Commission
FROM: Alan Sielaff, Planner I
THROUGH: Brook Svoboda, Director of Planning and Development
Corey Hoffman, City Attorney
Matthew Sura, Special Legal Counsel
SUBJECT: Case # 19-19 Oil & Gas Regulations Amendment
Unified Development Ordinance Amendment

REQUEST

Staff is presenting proposed updates to the Oil and Gas regulations found in Section 11-3-6 of the Unified Development Ordinance (UDO) for public hearing and recommendation to City Council.

RECOMMENDATION

Staff is recommending that the Planning Commission recommend approval of the proposed Amendment to the UDO to the City Council.

Recommended Motion.

"I move to approve Resolution 2019-09, a resolution providing a favorable recommendation to the City Council for approval of CB-1937 – Oil and Gas Regulations update to the Unified Development Ordinance."

DISCUSSION

Background.

In the spring of 2019 the Colorado State Legislative Assembly approved Senate Bill 19-181, titled "Protecting Public Welfare in Conduct of Oil and Gas Operations." This bill acted to reform the Colorado Oil and Gas Conservation Commission's mission to protect public health and the

environment, give local government clear regulatory authority, and reform forced pooling laws. As a result of this state legislative action, the City Attorney's Office has led a review of our current Oil and Gas regulations within the Unified Development Ordinance (UDO) and has proposed revisions to the UDO (included as Attachment 1). These revisions impact Section 11-3-6 Oil and Gas Operations, and Section 11-7-4 Definitions related to Oil and Gas Regulations.

As referenced in Section 11-3-6(b)(4) of the proposed revisions, an Oil and Gas Best Management Practices (BMP) document is proposed to be adopted in conjunction with the code revisions (included as Attachment 2). This document will serve as expert guidance for any Oil and Gas Permit application review and is included in Section 11-3-6(e)(1)(H) as eligible bases to include in any conditions of approval. The BMP document will be posted on the City's website, and allows the City Manager to administratively update the document "as necessary to reflect changes to technology, state regulations, and industry practices."

A representative from the City Attorney's Office will be presenting a detailed overview of the proposed code amendment to the Planning Commission and will be available to answer any questions from the Commission or public. The presentation is included as Attachment 3.

Notification Requirements.

Notification for this application was conducted in accordance with the requirements of Section 11-6-3(e) of the UDO, Scheduling and Notice of Public Hearings. The only notification requirement for a UDO Amendment is a notice of public hearing published in the Northglenn-Thornton Sentinel at least 15 days prior to the public hearing.

APPROVAL CRITERIA

Applicable Approval Code Provisions.

The following sections of the code should be considered with review of the various components of this application.

- Section 11-3-6, Oil and Gas Operations
- Section 11-6-4, Unified Development Ordinance Amendment

Criteria Analysis.

Section 11-6-4(c)(3)(D)(iii) requires the proposed UDO Amendment comply with the following approval criteria. A brief staff analysis is provided of each:

Criteria:	Staff Analysis:
a) Is consistent with the Comprehensive Plan;	The proposed UDO Amendment is in conformance with the Comprehensive Plan.
b) Does not conflict with other provisions of this UDO or other provisions in the Northglenn Municipal Code;	The proposed UDO Amendment does not conflict with other provisions of the UDO or other provisions of the Northglenn Municipal Code. The proposed Amendment has been developed and reviewed by the City Attorney's Office.

c) Is necessary to address a demonstrated community need;	The proposed UDO Amendment is necessary to address a demonstrated community need to ensure City code remains in conformance with updated state regulations and more closely reflect regulations recently adopted by Adams County.
d) Is necessary to respond to changing conditions or policy; and	The proposed UDO Amendment is necessary to respond to changing policy to ensure City code remains in conformance with updated state regulations and more closely reflect regulations recently adopted by Adams County.
e) Is consistent with the purpose and intent of the zoning districts in the UDO, would improve compatibility among land uses within the City, or would result in an orderly and logical development pattern.	The proposed UDO Amendment is consistent with the purpose and intent of the zoning districts in the UDO that will allow Oil and Gas Operations, and is proposed to ensure continued compatibility among land uses.

ADMINISTRATION

Possible Actions by the Planning Commission.

The Planning Commission is not the final approval authority for review of a UDO Amendment and shall review the application and provide a recommendation to the City Council. The Commission's options for recommendation are as follows:

1. Recommend approval of the request, with or without conditions or stipulations;
2. Recommend denial of the request for reasons stated; or
3. Table the request for further consideration or additional information.

Next Steps.

The Planning Commission's recommendation on this Oil & Gas Operations UDO Amendment will be forwarded to City Council for consideration. First reading is scheduled for October 14, 2019, and second reading and public hearing will be held at the October 28, 2019 City Council meeting.

ATTACHMENTS

Attachment A – Proposed Revisions to Section 11-3-6, Oil and Gas Operations
Attachment B – Oil and Gas Best Management Practices Exhibit
Attachment C – Presentation

**CITY OF NORTHGLENN
OIL AND GAS BEST MANAGEMENT PRACTICES EXHIBIT**

1. ***Air Quality.*** Operator must eliminate, capture, or minimize all potentially harmful emissions and minimize dust associated with onsite activities and traffic on access roads pursuant to the terms herein. Operator shall comply with all applicable state and federal regulations including regulations promulgated by CDPHE, COGCC and US EPA.
 - A. Minimization of Emissions. To protect air quality, the following is required of the operator:
 - i. The use of electric equipment for permanent equipment, such as electric drilling rigs, electric compressors and use of line power as detailed in BMP Section 1E.
 - ii. All fossil-fuel powered engines used for drilling, completions and production operations on Well Sites shall employ the latest emission-reduction technologies that are economically practicable and Best Management Practices such as drilling rigs powered by electricity, electric compressors and green completions.
 - iii. Comply with the transportation and circulation section addressing traffic provisions set forth in Section 15.
 - iv. Manufacture test or other data demonstrating hydrocarbon destruction or control efficiency that complies with a design destruction efficiency of 98% or better.
 - v. The use of no-bleed continuous and intermittent pneumatic devices. This requirement can be met by replacing natural gas with electricity or instrument air, or routing the discharge emissions to a closed loop-system or process.
 - vi. Any flare, auto ignition system, recorder, vapor recovery device or other equipment used to meet the hydrocarbon destruction or control efficiency requirement shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
 - vii. No use of glycol dehydrators or desiccant gas processing dehydrators.
 - viii. Compressor engines are prohibited within the City limits except for wellhead, sales, and gas lift compressors, air and/or gas gathering compressors which shall be located on the Well Sites. Operator shall use enclosures of compressor engines where necessary to provide visual and/or noise mitigation. Any compressors that are used as part of the vapor recovery units (air pollution controls) will be limited to 6-8 small engine drive units. VRU compressors will be installed with sound walls to buffer noise.
 - ix. To the maximum extent practicable, Operator's Well Site and equipment design will reduce emissions of associated gas from hybrid gas-oil wells (i.e. gas that is co-produced from a well that primarily produces oil).

- x. Best management practices during liquids unloading (i.e. maintenance activities to remove liquids from existing wells that are inhibiting production), and the installation of artificial lift or unloading through the separator where practicable.
 - xi. To the maximum extent practicable, Operator will reduce emissions from oil and gas pipeline maintenance activities such as pigging or blowdowns. If any maintenance activity will involve the intentional venting of gas from a well tank, compressor or pipeline, beyond routine pipeline maintenance activity and pigging, the operator shall provide forty eight (48) hour advance written notice to the City of such proposed venting. Such notice shall identify the duration and nature of the venting event, a description as to why venting is necessary, a description of what vapors will likely be vented, what steps will be taken to limit the duration of venting, and what steps the operator proposes to undertake to minimize similar events in the future. If venting is required, or if accidental venting occurs, the operator shall provide such notice to the City of such event as soon as possible, but in no event longer than 24 hours from the time of the event, with the information listed above and with an explanation as to the cause and how the event will be avoided in the future.
 - xii. Flaring shall be eliminated or minimized to the maximum extent practicable
 - xiii. Consolidation of product treatment and storage facilities within a Well Site.
 - xiv. Centralization of compression facilities within a Well Site.
 - xv. Telemetric control and monitoring systems, including surveillance monitors to detect when pilot lights on control devices are extinguished.
 - xvi. Compliance with all CDPHE air permits, if any, and all OSHA work practice requirements with respect to benzene.
 - xvii. Participation in Natural Gas STAR program or other equivalent voluntary programs to encourage innovation in pollution control at Well Sites.
 - xviii. Use of a pressure-suitable separator and vapor recovery unit (VRU) where applicable.
 - xix. Pipeline infrastructure will be constructed prior to the Production Phase.
 - xx. For hydraulic fracturing pumps, Operator must use any of the following:
 - (a) Tier 4 or better diesel engines, or
 - (b) combined diesel and natural gas co-fired Tier 2 engines, or
 - (c) natural gas fired spark ignition engines
- B. *Leak Detection and Repair.* Operator shall develop and maintain an acceptable leak detection and repair (“LDAR”) program as required by CDPHE using modern leak detection technologies such as infra-red cameras for equipment used on the Well Sites. For the five (5) year period beginning with the start of the Production Phase per well location at the first Well Site, Operator shall

conduct quarterly IR camera monitoring of all equipment at the Well Sites. After the first five-year period, Operator will conduct at least semi-annual IR camera monitoring until all the wells on the Well Site are plugged and abandoned. Except when a circumstance would necessitate an immediate repair, Operator must repair leaks as quickly as practicable. If more than 48-hours repair time is needed after a leak is discovered, an explanation of why more time is required must be submitted to the City. Operator shall conduct continuous pressure monitoring to detect leaks. At least once per year, the Operator shall notify the City five (5) business days prior to an LDAR inspection of its facilities to provide the City the opportunity to observe the inspection.

- C. *Ambient Air Monitoring.* An air monitoring plan that describes how the Operator will conduct baseline monitoring within 500 feet of a proposed facility prior to construction and conduct continuous monitoring during the drilling, completion and production phases of development. The plan may include monitoring for all potential emissions, including but not limited to, methane, VOCs, Hazardous Air Pollutants (HAPs), Oxides of Nitrogen (NOx), Particulate Matter (PM), and Fine Particulate Matter (PM 2.5). Operator shall pay for the baseline and continuous monitoring. Baseline and continuous monitoring shall be done by a consultant approved of by the City. Any continuous monitoring system shall be able to alert the operator of increases in monitored air pollutant concentrations.
- D. *Ozone Air Quality Action Days.* On Air Quality Action Day advisories posted by the CDPHE for the Front Range Area, the Operator shall implement CDPHE-suggested air emission reduction measures as practicable. Emission reduction measures shall be implemented for the duration of an Air Quality Action Day advisory and may include measures such as:
 - i. Minimize vehicle and engine idling;
 - ii. Reduce truck traffic and worker traffic;
 - iii. Delay vehicle refueling;
 - iv. Suspend or delay use of fossil fuel powered ancillary equipment; and
 - v. Postpone construction activities, if practicable.
 - vi. Within 30 days following the conclusion of each annual Air Quality Action Day season, Operator must submit a report to the City that details which measures it implemented during any Action Day advisories.
- E. *Electric Equipment.* All permanent production equipment, such as compressors, motors and artificial lift equipment, shall utilize electric line power in order to mitigate noise and to reduce emissions.
 - i. All drilling rigs capable of drilling to Total Depth (TD) on a well shall be required to utilize electric line power unless the City waives this provision in writing for a specific location or for any well not located within 1,320 ft of a Residential Building Unit or not within 1,500 ft of a High Occupancy Structure. At any location where Operator is not required by this provision to utilize line power for drilling, Operator will utilize line power if available in sufficient quantity from the utility provider. Operator shall minimize use of diesel generators for temporary power, including the use of liquified or compressed natural

gas for power generation to further reduce emissions and noise. At any location where line power is not used for drilling, Operator shall provide to City at City's request the source(s) used for power.

- ii. If necessary, Operator shall provide an Electrification Plan to describe how electricity will be brought to the location for all phases of development.
- F. *Exhaust.* The exhaust from all engines, motors, coolers and other mechanized equipment shall be vented up or in a direction away from the nearest occupied building.
- G. *Flares and Combustion Devices.* To the extent flares, thermal oxidizers, or combustion devices are utilized, all such flares shall be designed and operated as follows:
- i. Flares shall be fired with natural gas and designed to operate with a 98% of higher hydrocarbon destruction efficiency.
 - ii. Flares shall be designed and operated in a manner that will ensure no visible emissions during normal operation. Visible emissions means observations of smoke for any period or periods of duration greater than or equal to one (1) minute in any fifteen (15) minute period during normal operation, pursuant to EPA Method 22. Visible emissions do not include radiant energy or water vapor.
 - iii. Flare shall be operated with a flame present at all times when emissions may be vented to it, or shall utilize another mechanism that does not allow uncontrolled emissions.
 - iv. All combustion devices must be equipped with an operating auto-igniter.
- H. *Fugitive Dust.* Operator must submit to the City a dust mitigation plan. Silica dust must be contained to the maximum extent practicable during the hydraulic fracturing process. Dust associated with on-site activities and traffic on access roads shall be minimized throughout construction, drilling and operational activities such that there are no visible dust emissions from access roads or the Well Sites to the extent practical given wind conditions. No untreated produced water or other process fluids shall be used for dust suppression. The Operator will avoid creating dust or dust suppression activities within three hundred (300) feet of the ordinary high water mark of any waterbody, unless the dust suppressant is water. Material Safety Data Sheets (MSDS) for any chemical-based dust suppressant, other than magnesium chloride, shall be submitted to the City prior to use.
- I. *Odor/Dust Containment.* Operations shall be conducted in such a manner that odors and dust do not constitute a nuisance or hazard to public health, safety, welfare and the environment. All Operations shall use best available technologies that are reasonably available to control odor and dust. If deemed necessary and reasonable, the City may require additional mitigation efforts at any point during Operations. Odor emitting from Well Sites must be controlled. Operator to prevent odors from oil and gas operations by proactively addressing and, to the extent possible, resolving complaints filed by impacted members of the community. If a person living in a Residential Building Unit within 1,320 feet of a Well Site complains of odor, Operator shall determine whether the odor is caused by Operator's Operations. If the odor is caused by Operator's Operations, Operator shall resolve the odor concern to the maximum extent practical within 24

hours. Operator must use a filtration system or additives to the drilling and fracturing fluids to minimize odors. Use of fragrance to mask odors is prohibited. In order to meet the provisions of this section, Operator shall implement one or more of the following measures as necessary:

- i. Running mud through a cooler to reduce odor.
- ii. Wiping down the drill pipe each time that the drilling operation “trips” out of the hole.
- iii. Increase additive concentration,.
- iv. Operator will employ the use of drilling fluid with low to negligible aromatic content during drilling operations after surface casing is set for the protection of fresh water aquifers;
- v. Operator will haul drill cuttings off on a daily basis.
- vi. Per BMP 1.E. certain locations will utilize an electric drilling rig, which will further reduce odors associated with drilling.

J. *Compliance.* The Operator must submit annual reports to the City certifying (a) compliance with these air quality requirements unless demonstrated to be inapplicable and documenting any periods of material non-compliance, including the date and duration of each such deviation and a compliance plan and schedule to achieve compliance, (b) that the equipment at the Well Sites continues to operate within its design parameters, and if not, what steps will be taken to modify the equipment to enable the equipment to operate within its design parameters. The annual report must contain a certification of accuracy and completeness of the reports, signed by a responsible corporate official. The Operator may satisfy this reporting obligation in whole or in part by submitting its AQCC Regulations No. 7 annual reports for the prior calendar year to the City, and supplementing them as needed to meet these reporting requirements for covered facilities within the City. The Operator will also provide the City with a copy of any self-reporting submissions that Operator provides to the CDPHE due to any incidence of non-compliance with any CDPHE air quality rules or regulations at the Well Sites.

2. Water Quality Protection

A. *Chemical Disclosure and Storage.* All fracturing chemicals shall be disclosed to the City pursuant to the process set forth below before chemicals are transported to the Well Site. Prior to the transportation of such chemicals onto the property, the Operator shall make available to the City, in table format, the name, Chemical Abstracts Service (CAS) number, storage, containment and disposal method for such chemicals to be used on the Well Sites, which the City may make available to the public as public records. Fracturing chemicals shall be uploaded onto the Frac Focus website within sixty days of the completion of fracturing operations. The Operator shall not permanently store fracturing chemicals, flowback from hydraulic fracturing, or produced water in the City limits. Operator shall remove all hydraulic fracturing chemicals from a Well Site within thirty (30) days following the completing of hydraulic fracturing at that Well Site.

In addition to any substances that are not permitted to be used in accordance with state or federal rules or regulations in place from time to time, the following chemicals shall not be utilized in hydraulic fracturing fluid at the Well Sites:

Ingredient Name	CAS #
Benzene	71-43-2
Lead	7439-92-1
Mercury	7439-97-6
Arsenic	740-38-2
Cadmium	7440-43-9
Chromium	7440-47-3
Ethylbenzene	100-41-4
Xylene-F	1330-20-7
1,3,5-trimethylbenzene	108-67-8
1,4-dioxane	123-91-1
1-butanol	71-36-3
2-butoxyethanol	111-76-2
N,N-dimethylformamide	68-12-2
2-ethylhexanol	104-76-7
2-mercaptoethanol	60-24-2
benzene, 1,1'-oxybis-, tetrapropylene derivatives, sulfonated, sodium salts (BOTS)	119345-04-9
butyl glycidyl ether	8/6/2426
polysorbate 80	9005-65-6
quaternary ammonium compounds, dicoco alkyldimethyl, chlorides (QAC)	61789-77-3
hexamethylene triamine penta methylene phosphonic acid (BMPA)	35657-77-3
diethylenetriamine penta (methylene-phosphonic acid)(DMPA)	15827-60-8

Ingredient Name	CAS #
FD&C blue no. 1	3844-45-9
Tetrakis(triethanolaminate) zirconium(IV) (TTZ)	101033-44-7

- B. *Closed-Loop Pitless Systems for the Containment and/or Recycling of Drilling Fluids.* Wells shall be drilled, completed and operated using closed-loop pitless systems for containment and/or recycling of all drilling, completion, flowback and produced fluids. Operator shall recycle fluids to the maximum extent practicable, with the understanding that Operator is limited in its ability to recycle all fluids, as doing so would necessitate the use of permanent tanks, and result in the potential for additional emissions. Operator shall not store waste onsite for periods longer than 30 days.
- C. *Containment Berms.* The Operator shall utilize steel-rim berms (or similar material of comparable durability) around all permanent separation and storage equipment at the Well Sites with sufficient capacity to contain 1.5 times the maximum volume of liquids that such equipment will contain at any given time plus sufficient freeboard to prevent overflow. All berms and containment devices shall be inspected quarterly by the Operator and maintained in good condition. No potential ignition sources shall be installed inside the secondary containment area unless the containment area encloses a fired vessel or such sources are rated in accordance with industry codes and standards. Secondary containment such as duck ponds or lined earthen berms for temporary tanks shall also be used.
- i. Permanent containment berms shall be constructed of steel rings or similar material, designed and installed to prevent leakage and resist degradation from erosion or routine operation.
 - ii. Secondary containment for permanent tanks shall be constructed with a synthetic or engineered liner that contains all primary containment vessels and is mechanically connected to the steel ring to prevent leakage.
- D. For locations within five hundred (500) feet and up-gradient of a surface water body, tertiary containment, such as an earthen berm, is required around respective production facilities.
- E. *Spill Response Kits.* Spill Response Kits will be available at either Well Sites or carried by field staff or contractors. These Spill Response Kits will be capable of mitigating small to mid-size spills (e.g., 5 to 50 gallons).
- F. *Injection Wells.* The Operator is prohibited from drilling or using injection wells in the City of Northglenn.
- G. *Maintenance of Machinery.* Maintenance of vehicles shall not occur on site. Routine field maintenance of mobile machinery shall not be performed within three hundred (300) feet of any waterways (lakes, rivers, and streams.) All fueling must occur over impervious material.

- H. *Spills.* Operator must notify the City of spills on the Well Sites that has a reportable spill quantity under any law. The Operator will also provide the City with a copy of any self-reporting submissions that Operator provides to the COGCC due to any spills at the Well Sites.
- I. *Stormwater Pollution Prevention and Erosion Control Plan.* All oil and gas operations at the Well Sites shall comply and conform with the City's stormwater control regulations.
- J. *Water Quality Monitoring Plan.* Oil and gas operations shall avoid causing degradation to surface or ground water within the City and to wetlands within the City. The following standards set forth by the City are consistent with the COGCC rules and regulations.
 - i. Using records of the Colorado Division of Water Resources, Operator must implement a water quality monitoring plan that includes the following:
 - a) Operator must obtain initial baseline samples and subsequent monitoring samples from all available potable water sources within a one-half (1/2) mile radius of the Well Sites. Potable water sources include registered water wells or permitted or adjudicated springs.
 - b) Operator must collect initial testing of baseline samples from all available water sources prior to the commencement of drilling a well, or prior to the re-stimulation of an existing well for which no samples were collected and tested during the previous 6-12 months.
 - c) Post-stimulation samples of all available water sources shall be collected and tested pursuant to the following time frame:
 - 1. One sample approximately one (1) year after commencement of the Production Phase;
 - 2. One sample approximately five (5) years after commencement of the Production Phase; and
 - d) Operator shall collect a sample from at least one upgradient and two down-gradient water sources within a one-half (1/2) mile radius of a Well Site. If no such water sources are available, Operator shall collect samples from additional water sources within a radius of up to one (1) mile from the Well Site until samples from a total of at least one upgradient and two down-gradient water sources are collected. Operator should give priority to the selection of water sources closest to the Well Site.
 - e) Operator may rely on existing groundwater sampling data from any water source within the radii described above that was collected in accordance with accepted standards, provided the data was collected within the 12 months preceding the commencement of Drilling Phase for such Well Site, the data includes measurement of all of the constituents measured in Table 1 below and there has been no significant oil and gas activity within a one-mile radius in the time period between the original sampling and the commencement of the Drilling Phase for such Well Site.

- f) Operator shall make reasonable efforts to obtain the consent of the owner of the water source. If the Operator is unable to locate and obtain permission of the water source, the Operator must advise the City that Operator could not obtain access to the water source from the surface owner.
- g) Testing for the analytes listed in Table 1 below, and subsequent testing as necessary or appropriate.
- h) Operator must follow standard industry procedures in collecting samples, consistent with the COGCC model Sampling and Analysis Plan.
- i) Operator must report the location of the water source using a GPS with submeter resolution.
- j) Operator must report results of field observations including reporting on damaged or unsanitary well conditions, adjacent potential pollution sources, odor, water color, sediment, bubbles, and effervescence.
- k) Operator must provide copies of all test results to the City, the COGCC, and the water source owners within 30 days after receiving the samples.
- l) Subsequent sampling. If sampling shows water contamination, additional measures shall be required including:
 - 1. If free gas or a dissolved methane concentration level greater than one (1) milligram per liter (mg/l) is detected in a water source, determination of the gas type using gas compositional analysis and stable isotope analysis of the methane (carbon and hydrogen).
 - 2. If the test results indicate thermogenic or a mixture of thermogenic and biogenic gas, an action plan to determine the source of the gas.
 - 3. Immediate notification to the City, the COGCC, and the owner of the water well if the methane concentration increases by more than five (5) mg/l between sampling periods, or increases to more than ten (10) mg/l.
 - 4. Immediate notification to the City, the COGCC and the owner of the water well if BTEX and/or TPH are detected as a result of testing. Such detections may result in required subsequent sampling for additional analytes.
 - 5. Further water well sampling in response to complaints from water source owners.
 - 6. Timely production and distribution of test results in electronic deliverable format to the City, the COGCC and the water source owners.
 - 7. Qualified Independent Professional Consultant. All subsequent water source testing must be conducted by a qualified independent professional consultant.

TABLE 1

GENERAL WATER QUALITY

Alkalinity, Conductivity & TDS, pH, Dissolved Organic Carbon (or Total Organic Carbon), Bacteria, Perfluorinated Compounds (PFCs), and Hydrogen Sulphide

MAJOR IONS

Bromide, Chloride, Fluoride, Magnesium, Potassium, Sodium, Sulfate, and Nitrate + Nitrite as N

METALS

Arsenic, Barium, Boron, Chromium, Copper, Iron, Lead, Manganese, Selenium, Strontium, Mercury, Uranium, and Radium

DISSOLVED GASES and VOLATILE ORGANIC COMPOUNDS

Methane, Ethane, Propane, BTEX as Benzene, Toluene, Ethylbenzene and Xylenes, Total Petroleum, and Hydrocarbons (TPH)

OTHER

Water Level, Stable isotopes of water {Oxygen, Hydrogen, Carbon), Phosphorus.

- K. *Wastewater and Waste Management.* Operator must submit a Waste Management Plan to the City that complies with the following: All fluids shall be contained and there shall be no discharge of fluids. Waste shall be stored in tanks, transported by tanker trucks and/or pipelines, and disposed of at licensed disposal or recycling sites. No land treatment of oil impacted or contaminated drill cuttings are permitted. If required, a copy of the Operator's Spill Prevention, Control, and Countermeasure Plan (SPCC) will be given to the City, which describes spill prevention and mitigation practices. The Operator shall not dispose of any wastewater within the City. All other waste shall be disposed of in accordance with state regulations.
- L. *Well Integrity.* Operator must equip the bradenhead access to the annulus between the production and the surface casing, as well as any intermediate casing, with a fitting to allow safe and convenient determinations of pressure and fluid flow. Valves used for annular pressure monitoring shall remain exposed and not buried to allow for visual inspection. The Operator shall take bradenhead pressure readings as required by the COGCC.
- M. *Wetlands Protection Plan.* If applicable, Operator must supply a Wetlands Protection Plan demonstrating that the oil and gas operations will avoid causing degradation to wetlands. Among other methods to achieve compliance with this standard, the proposed oil and gas operation shall not alter historic drainage patterns and/or flow rates or shall include acceptable mitigation measures to compensate for anticipated drainage impacts.
3. *Water Supply.* The Operator shall comply with applicable State of Colorado, Department of Natural Resources and other applicable State regulations concerning the source(s) of water used in the Drilling Phase and Completions Phase. The Operator shall notify the City, upon its request, of the source(s) of water to be used at Well Sites during the Drilling Phase and Completion Phase and will provide the City with an estimate of the volumes of water to be utilized, with such estimates subject to change. All water volumes actually used by Operator shall be reported by the Operator to the State of Colorado in accordance with its regulations. All fresh water for hydraulic fracturing shall be transported to the Well Sites by means other than by truck, unless the Operator provides notice after demonstration of extenuating circumstances which will short amount of time seven days or less. If the transportation of water by means other than truck exceeds seven (7) days the operator will seek any necessary amendments to the oil and gas permit.

4. *Safety*

- A. *Bradenhead Monitoring.* Operator will conduct bradenhead monitoring on the New Wells in accordance with COGCC Rules.
- B. *Burning.* No open burning shall occur on the site of any oil and gas operation except flaring as allowed in Section 1G.
- C. *Discharge Valves.* Open-ended discharge valves on all storage tanks, pipelines and other containers within the Well Site shall be secured and shall not be accessible to the general public. Open-ended discharge valves within the Well Site shall be placed within the interior of the secondary containment area.
- D. *Flammable Material.* All ground within twenty-five (25) ft. of any tank, or other structure containing flammable or combustible materials, shall be kept free of dry weeds, grass or rubbish, and shall conform to COGCC 600 Series Safety Regulations and the applicable Fire Code. As such, no landscaping will be required within 25'± ft. of any tank or other structure containing flammable or combustible materials.
- E. *Flowlines.* Any newly constructed or substantially modified flowlines on the Well Sites shall be constructed and operated under the provisions of the COGCC 1100 Series Flowline Regulations, any future COGCC Flowline Regulations, and any applicable surface use agreements with the surface owners. Operator shall pressure test all flowlines following their construction, including those rated at less than 15 PSI. Operator will provide to the City all records required to be submitted to State agencies related to inspections, pressure testing, accidents and other safety incidents related to flowlines at the Well Sites and, upon specific request by the City, Operator will provide to the City any other records submitted to State agencies related to flowlines at the Well Sites.
 - i. *Recordation of Flowlines.* All new flowlines and pipelines shall have the legal description of the location recorded with the applicable county clerk and recorder within thirty (30) days of completion of construction. Abandonment of any recorded flowlines shall be recorded with the applicable county clerk and recorder within thirty (30) days after abandonment.
 - ii. Operator will provide GIS files for the location of Flowlines.
 - iii. Flowlines will be removed when last well utilizing lines are plugged and abandoned unless this requirement is waived in writing by the City.
- F. *General Maintenance.* Operator shall operate and maintain all equipment pursuant to manufacturer specifications consistent with technological limitations and reasonable and customary maintenance practices.
- G. *Plugged and Decommissioned Well Testing.* Prior to and following the hydraulic fracturing of any New Well, Operator shall assess the integrity of all oil and gas and disposal wells (Active, Dry & Abandoned, Injecting, Plugged & Abandoned, Producing, Shut-In, and Temporarily Abandoned) where the surface location is within city limits and within 1,500 ft. of the completion interval of the projected track of the borehole of the proposed New Well. Evaluation of these wells, including

the additional testing and disclosure that exceeds COGCC requirements, will promote public health and safety by identifying and reporting findings at these Previously Abandoned wells and ensuring that the completion of New Wells has no impact to them.

This shall include:

- i. Compliance with all COGCC rules in relation to abandonment and plugging.
 - ii. Notification to the City and applicable Fire District not less than fourteen (14) days prior to commencing plugging operations.
 - iii. Based upon examination of COGCC and other publicly available records, identification of all Previously Abandoned Wells located within one-quarter mile of the projected track of the borehole of a proposed well.
 - iv. Assessment of leaking gas, oil, or water to the ground surface or into subsurface water resources, taking into account plugging and cementing procedures described in any recompletion or plugged and abandoned report filed with the COGCC.
 - v. Notification of the City and COGCC of the results of the assessment of the plugging and cementing procedures.
 - vi. Permission from each surface owner with a Previously Abandoned Well on their property to access the property to test the soil within a 10 ft. radius of the Previously Abandoned Well. If a surface owner has not provided permission to access and test after thirty (30) days from receiving notice, the Operator shall not be required to test the Previously Abandoned Well. Notice to the surface owner will be sent by Certified Mail through the US Postal Service, return receipt requested, to assure that the surface owner receives proper notice. The City will be notified for purposes of testing is denied within the City limits.
 - vii. For each Previously Abandoned Well or other wells abandoned by the Operator within the City for which access and permission to test is granted, a soil gas survey to test the soil within a 10' radius of the Previously Abandoned Well shall be completed prior to production from the proposed New Well and again one (1) year after production has commenced on the New Well. Every Well abandoned by the Operator shall also be subject to the testing one (1) year after production has commenced on the New Wells.
 - viii. Notification of the results of the soil gas survey to the City and the COGCC within one (1) month of conducting the survey or advise the City that access to the Previously Abandoned Wells could not be obtained from the surface owner.
- H. *Site Security.* Operator will provide a Site Security Plan for each location. Each plan will need to be updated every ten years or more frequently if required by the City at its sole discretion based upon growth and development in the immediate vicinity.
- I. *Surface Safety Valve and Automatic Safety Protective Systems.* An automated safety system, governed by safety devices and a programmable logic computer, will be installed at the Well Sites. The automated safety system shall include the installation, monitoring and remote control of a

Surface Safety Valve (“SSV”) among many other engineered measures and devices that are implemented to greatly reduce or eliminate the potential for a well event. All New Wells will have a SSV installed prior to the commencement of the Production Phase connected to the production tubing at the surface. The SSV will be equipped to operate remotely via the automated safety protective system, which monitors multiple flowing pressures and rates which have predetermined maximum and/or minimum threshold values programmed and will remotely shut the well in should certain upset conditions be detected. Additionally, the automated safety system shall provide the ability to remotely shut-in wells on demand through operator remote intervention. The SSV will have documented quarterly testing to ensure functionality.

5. Visual Mitigation Plan. Operator shall implement the Visual Mitigation Plan for a Well Site approved during the application process for such Well Site. The Visual Mitigation Plan shall include photographic simulations of the Well Site that include proposed impact mitigation measures as indicated below. The Community Development Director will determine if the proposed Well Site requires a photographic simulation based upon topography, existing vegetative and/or structural screening and the linear distance from the proposed Operations to residential and/or commercial land use(s).

A. *Visual Mitigation Methods.* One or more of the following visual mitigation methods may be required on a site-specific basis:

- i. Use of low-profile tanks less than 16 ft. in height. Operator will also consider equipment height and profile when designing and selecting other permanent equipment such as emission control devices, and other production equipment.
- ii. Facility painting, vegetative or structural screening, land berming and landscaping.
- iii. Earthen berm located around the perimeter of the fence and planted with turf grass or ground cover generally recognized by landscape architects and horticulturalists for local area use for the purpose of general screening
- iv. Establishment and proper maintenance of ground cover, trees and shrubs for screening and aesthetic purposes; and
- v. Designing the Oil and Gas Facility to utilize natural screens where possible.
- vi. Construction of fences for use with or instead of landscaping or berming.

B. *Landscaping.* A Landscaping Plan shall be required for every Oil and Gas Location. The Landscaping Plan shall be coordinated with the City, depending on access to water, may be staged to accommodate surface development.

- i. If water for irrigation use is unavailable at the location, the initial phase will utilize natural topography and fencing surrounding the location, as well as any trees already established near the property. Initial landscaping will be installed within 6 months of finishing drilling and completion operations. At that time Operator will fence and landscape the location.
- ii. Once water for irrigation use is available to the area, the Operator must implement the final Landscaping as described in the Landscaping Plan. The Operator must consult with

the City as well as meet Unified Development Ordinance requirements at the time the final landscaping is installed.

- iii. All plant materials shall be maintained in a healthy growing condition at all times. The Operator is responsible for the regular weeding, mowing, fertilizing, pruning and other maintenance of all plant materials as needed. Proper irrigation of plant materials is required, except that automatic irrigation systems are not required if no direct water connection is available within 500 ft.
- iv. *Mature Trees.* Existing mature trees (greater than eight inches in caliper) shall be preserved to the maximum extent practicable and may help satisfy the landscaping requirements set forth above. All required landscape plans shall accurately identify the locations, species, size, and condition of all significant trees, each labeled showing the applicant's intent to either remove, transplant, or protect.

Trees that meet one or more of the following removal criteria shall be exempt from the requirements contained in this subsection:

- a) Dead, diseased, or naturally fallen trees, or trees found to be a threat to public health, safety or welfare;
- b) Trees that are determined by the city to substantially obstruct clear visibility at driveways and intersections; or
- c) Tree species that constitute a nuisance to the public such as cotton-bearing cottonwood, Siberian or Chinese elm, Russian olive and female box-elder. Native cotton-bearing cottonwood trees and female box-elder trees, when located in a natural area buffer zone, are not nuisance tree species.

- C. *Lighting.* Exterior lighting shall be directed away from residential and other sensitive areas or shielded from said areas to eliminate glare. All permanent lighting fixtures installed at the Operations shall comply with the lighting standards of the Unified Development Ordinance. The intent of this provision is to minimize light spillage beyond the perimeter of the Well Sites and for the Operator to take appropriate steps in order to achieve this. All permanent lighting or lighting higher than a perimeter wall must be downward facing. All bulbs must be fully shielded to prevent light emissions above a horizontal plane drawn from the bottom of the fixture. Prior to installation of permanent lighting on any facility, the Operator shall submit to the City a Lighting Plan and the City shall communicate with Operator any modifications to the plan that it deems appropriate. Operator shall make such modifications as reasonably required by the City and as required by law. The lighting plan shall indicate the location of all outdoor lighting on the site and any structures, and include cut sheets (manufacturer's specifications with picture or diagram) of all proposed fixtures. During the Drilling and Completion Phases, consistent with applicable law, Operator will construct a minimum 32 ft.in height wall around as much of the perimeter of the well pads as operations allow to reduce light escaping from the site, unless taller, shorter, or no walls are mutually agreed to by City and Operator on a site-specific basis.
- D. *Artificial Lift.* Artificial lift will not be accomplished through the use of traditional pump jacks. Alternatives such as gas lift, linear rod pumps, or hydraulic pumping unit may be used, and are

to be as low profile as practicable with a maximum height of 30 ft. An alternative artificial lift system may be used if it is less visible or auditory impacts and is agreed to by both parties.

- E. *Trailers.* A construction trailer(s) is permitted as an accessory use during active construction, drilling and well completion or workover operations only. No permanent residential trailers shall be permitted at the Well Sites; provided, however, that until ninety (90) days following the end of the Completion Phase on a Well Site, temporary residential and/or security trailers are permitted, as needed for on-site operations, for exclusive use by the Operator's personnel and the personnel of its subcontractors on a temporary basis.

6. Noise Management Plan

- A. Operators may be required to provide for additional noise mitigation based on the following site specific characteristics considering the distance from the nearest residential structure:
 - i. Nature and proximity of adjacent development (design, location, use);
 - ii. Prevailing weather patterns, including wind directions;
 - iii. Type and intensity of the noise emitted; and
 - iv. Vegetative cover on or adjacent to the site or topography.
- B. Based on the foregoing, if there is a Residential Building Unit or "Park and Open Space", as defined by the Unified Development Ordinance, within 1,320 ft. of the Well Location, the City may require one or more of the following additional noise abatement measures or BMPs depending on the site including:
 - i. A Noise Management Plan specifying the hours of maximum noise and the type, frequency and level of noise emitted, and the mitigation methods to be employed to control both A and C scale noise consistent and no greater than those noise specifications delineated in ii-vii below.
 - ii. The Operator shall comply with all provisions of COGCC Rule 802 and the Noise mitigation provisions of the Unified Development Ordinance.
 - iii. A Baseline Noise Mitigation Study will be conducted to ascertain baseline noise levels at each Well Site to demonstrate that noise is expected to be mitigated to the extent practicable and a copy will be provided to the City.
 - iv. If a Well Location is ever within 1,320 ft. of five or more Residential Building Units, a third party contractor, at expense of Operator, shall continuously monitor noise and continuously collect and store noise readings during drilling and completions, with instruments placed between the Oil and Gas Location and Residential Building Units. Third party contractor shall conduct the monitoring and data collection during construction, drilling, and completions operations. This data shall be available to COGCC on tables or graphs within 48 hours of being requested by COGCC.

- v. The Operator shall address C scale noise/vibration through berming, capable sound walls, and other associated BMPs. During the Drilling and Completion Phases, the operator shall construct a perimeter wall and/or comparable measures to mitigate noise as appropriate on a case-by-case or modeled basis. Additional mitigations must be taken by the Operator if C-scale noise levels are increased the larger of either 5db over ambient or above 65db at 25' from the nearest occupied building unit.
 - vi. Use of electric-powered motors and pumping systems; and
 - vii. Construction of buildings or other enclosures where Operations create noise and visual impacts that cannot otherwise be mitigated due to proximity, density or intensity of adjacent land use.
- C. *Quiet Technology.* The Operator must use quiet completions technology for any well located within 1,320 ft. of a Residential Building Unit or within 1,500 ft. of a High Occupancy Structure unless Operator obtains waivers from all affected property owners within that distance.

7. Community Outreach and Notification – Operator will comply with the following community outreach efforts:

- A. *Outreach to Affected Residents:* Operator will maintain a list, updated annually, of the residents and business owners within ¼ mile (1,320 ft.) of a location (“affected residents”). Operator will use the list to (1) Provide at least 7-14 days advanced notice and community awareness to affected residents of mobilization in, rig up (MIRU), (2) Notify affected residents within 7 days of any reportable events that could have off-site impacts including fires, explosions, blow-outs, venting, or large spills (over 100 barrels). Operator may satisfy these public notification requirements through direct correspondence or through direct mail. These affected resident notices shall also go to local Operations Emergency Management (OEM) (Fire/Police).
- B. *Bi-Annual Updates to City:* The Operator shall provide a formal written update to the City Council on a Bi-Annual basis as to the progress of the project, including but not limited to, (1) any reportable spills or reportable accidents at locations, (2) any notice of alleged violations from the City or COGCC, and (3) summary of complaints to the Operator and COGCC. This update shall be coordinated through the Community Development Department specifically including the LGD. Updates shall begin at the beginning of construction and continue throughout drilling and completion operations and cease once the final well approved has been drilled and has been in production for one full year.
- C. *Complaint Response:* Operator has a dedicated phone line to address complaints that is open 24 hours per day, 7 days a week. All substantive and actionable complaints received by Operator are documented, investigated, with an initial response within 24 hours communicated to the complainant, landowner, City LGD and appropriate state agency officials. Once appropriate corrective actions have been taken, those actions will be communicated to the complainant, landowner, City LGD and appropriate state agency officials. Coordination with City LGD will be ongoing to ensure the effectiveness of the complaint management process.

The following phone numbers and websites will be available to the community members to report complaints and will be provided in the materials sent to affected residents:

- i. Operator complaint/ 24 hr. hotline
- ii. Emergency / 24 hotline
- iii. City or Northglenn LGD
- iv. COGCC: <http://cogcc.state.co.us/complaints.html#/complaints>

8. Reclamation

- A. *Interim Reclamation Plan.* An interim reclamation plan, taking into account the interests of the Surface Owner, must be approved by the City. The interim reclamation plan must include, at minimum:
 - i. *Removal of Debris.* All construction-related debris shall be removed from the site for proper disposal in a timely manner. The site shall be maintained free of debris and excess materials at all times during operation. Operator shall not burn or bury debris at any time on the Well Sites.
 - ii. *Removal of Equipment.* All equipment used for drilling, re-completion and maintenance of the facility shall be removed from the site within thirty (30) days of completion of the work, weather condition permitting, unless otherwise agreed to by the surface owner. Permanent storage of removable equipment on Well Sites shall not be allowed.
 - iii. *Weed Control.* The Operator shall be responsible for ongoing weed control at the Well Sites and along access roads per City or other applicable agency regulations.
- B. *Final Reclamation Plan.* Operator must submit an oil and gas Well Site Final Reclamation Plan and reclaim a Well Site not later than six (6) months after plugging and abandoning the last New Well at such Well Site, weather and planting season permitting.
 - i. *Removal of Pipelines.* Pipelines, gathering lines and flowlines shall be removed after one year of non-use when last well utilizing lines are plugged and abandoned unless this requirement is waived in writing by the City.
 - ii. *Temporary Access Roads.* Temporary access roads associated with oil and gas operations at the Well Sites shall be reclaimed and revegetated to the original state within a reasonable amount of time, taking into account planting seasons, or as directed by the landowner in a Surface Use Agreement and subject to applicable COGCC variances. Operator must control erosion while access roads are in use.

- 9. ***Risk Management.*** Operator shall submit a project wide Risk Management Plan for oil and gas Well Sites and Facilities that includes but is not limited to risk identification, responsibilities, assessment, response, planning mitigation and, methods of risk avoidance and control that implement techniques to prevent the accident/loss and reduce the impact after it occurs. The Risk Management Plan that will be provided is taken from a similar project in the City and County of Broomfield which was completed by a third-party consultant. Operator shall also provide an addendum to the Risk Management Plan that identifies any site-specific concerns unique to the Well Site or not identified in the general plan. A Risk Management Plan is an evolving document subject to regular updates.

- A. **Identification**
Operator will evaluate the project and develop a list of items which are identified as a risk by those on the project planning team. The operator shall develop the risk identification in a risk table which will identify the particular site by name, describe the risk, provide a description of the risk area and associated factors and whether it is an unmitigated or mitigated risk.
- B. **Responsibilities**
The Risk Management Plan will provide information as to who is responsible for the managing risk and what plans support the risk mitigation. The RMP shall provide for employees, plans and procedures to oversee implementation and periodic revision of plan.
- C. **Assessment**
The Risk Management Plan will note whether there is a health, safety, and/or environmental impact, and whether there will be an impact to the development schedule or to the overall performance and quality assurance.
- D. **Response, Planning and Mitigation**
The Risk Management Plan may note a planned mitigation response for certain identified risks. The mitigation strategy should note a BMP for the varied risks. The mitigation strategies should include emergency response, tactical response plans and notifications.
- E. **Compliance Audit, Tracking and Reporting**
Operator will implement a compliance and audit program. The Operator shall determine and document an appropriate response to each of the findings of the compliance audit, and document that deficiencies have been corrected. If operator utilizes a self-reporting mechanism to any respective agency, that self-reporting mechanism will be described in the Risk Management Plan. If operator self-reports, any findings included in the self-reporting to any other respective agency will be provided to the City.
- F. **Incident and accident reporting.**
 - i. Incidents. Within a week of any reportable safety event as defined by the COGCC in Rule 602(c), Operator shall submit a report to the City that includes the following, to the extent available:
 1. Fuel source, location, proximity to residences and other occupied buildings, cause, duration, intensity, volume, specifics and degree of damage to properties, if any beyond the Well Site, injuries to persons, emergency response, and remedial and preventative measures to be taken within a specified amount of time.
 - ii. City may require Operator to conduct a root cause analysis of any reportable safety events or Grade 1 gas leaks, each as defined by the COGCC.
 - iii. Any spill or release that is reportable to the COGCC shall be simultaneously reported to the City's LGD and applicable fire district.
- G. **Update of Risk Management Plan**
Risk Management Plan is subject to review by the City Manager and City Council periodically, but at least every three years and after any incident. City may retain outside consultants to

review Risk Management Plan and may require modifications to Risk Management Plan based on its review.

- H. **Automatic safety protective systems and surface safety valves.** Operator is required to install automated safety system prior to commencement of production. Automated safety system shall include the installation, monitoring and remote control of a surface safety valve or a wellhead master control valve and shall be able to remotely shut-in wells on demand. Surface safety valve or a wellhead master control valve shall be equipped to operate remotely via the automated safety protective system. Operator shall test automated safety system to ensure functionality per manufacturer's specifications.
- I. Operator shall maintain safety management plans for oil and gas operations including: hazard review, operating procedures, safety training program, maintenance procedures, compliance audits, and design measures.

10. *Signs and Markers.* The Operator shall mark each and every Oil and Gas Well in a conspicuous place, from the time of initial drilling until final abandonment, as follows:

- A. **General Sign Requirements.** No sign required under this Section shall be installed at a height exceeding six (6) ft. Operator shall maintain signs in a legible condition and shall replace damaged or vandalized signs within sixth (60) days. New or successor Operators shall update signs within sixty (60) days after change of Operator approval is received from the COGCC.
- B. **Drilling and Recompletion Operations.** The Operator shall provide directional signs, no less than three (3) and no more than six (6) sq. ft. in size, during all drilling and recompletion Operations. Such signs shall be at locations sufficient to advise emergency crews where drilling or recompletion is taking place. At a minimum, such sign locations shall include the first point of intersection of a public road and the rig access road and thereafter at each intersection of the rig access route, except where the route to the well is clearly obvious to uninformed third parties. Signs not necessary to meet other obligations under these rules shall be removed as soon as practical after the Operation is complete.
- C. **Permanent Designations.**
 - i. **Oil and Gas Wells.** Within sixty (60) days after the Completion Phase of an Oil and Gas Well, a permanent sign shall be located at both the wellhead and surface equipment (if not at the wellhead), which shall identify the Oil and Gas Well, the name and contact information of the Operator and the legal location, including the quarter section.
 - ii. **Surface Equipment.** Within sixty (60) days after the installation of a tank battery, a permanent sign shall be located at the tank battery. At the option of the Operator, or at the request of the City, the sign may be placed at the intersection of the lease access road with a public road nearest the tank battery, if the tank battery is readily apparent from such location. Such sign, which shall be no less than three (3) sq. ft. and no more than six (6) sq. ft., shall provide: the name of the Operator; a phone number at which the Operator may be reached at all times; a phone number for local emergency services; the lease name

or Oil and Gas Well name(s) associated with the tank battery; the public road used to access the site; and the legal location, including the quarter section. In lieu of

iii. Tanks and Containers.

- a) All tanks with a capacity of ten (10) barrels or greater shall be labeled or posted with the following information:
 - 1. Name of Operator;
 - 2. Operator's emergency contact telephone number;
 - 3. Tank capacity;
 - 4. Tank contents; and
 - 5. National Fire Protection Association (NFPA) Label.

11. *Use of Pipelines.* The Operator shall use pipelines for the transport of oil and gas from the Well Sites and shall utilize such pipelines at the Well Sites before the Production Phase commences. Operator shall pipe all produced water from all Well Sites west of Tower Road. All fresh water for hydraulic fracturing shall be transported to the Well Sites by means other than by truck. The Operator's obligation to build and utilize such pipelines is subject to the City granting Operator all necessary right-of-way and the City issuing Operator the necessary City approvals (including but not limited to right-of-way, grading, conditional use permit). Operator shall be permitted to utilize temporary tanks during drilling, flowback, workover, completion, hydraulic fracturing and maintenance operations. This is contingent on the approval of the Conditional Use Permit for the Pipelines.

12. *Emergency Response Plan.* The Operator is required to complete a detailed Emergency Response Plan. The City and applicable fire and emergency responders must approve of the Emergency Response Plan ("Plan") before the Drilling Phase commences.

The Plan shall be reviewed by the Operator on an annual basis and any updates filed with the City and the applicable emergency responders. If no updates to the Plan are made then Operator shall provide notice of "No Change." The Plan shall include a notification system for potentially affected citizens and occupied buildings.

The Plan shall consist of at least the following information:

- A. Name, address and phone number, including twenty-four-hour numbers for at least two persons responsible for field operations as well as the contact information for any subcontractor of Operator engaged for well-control emergencies.
- B. An as-built facilities map in a format suitable for input into the City's GIS system depicting the locations and type of above and below ground facilities, including sizes and depths below grade of all oil and gas flow lines and associated equipment, isolation valves, surface operations and their functions, as well as transportation routes to and from exploration and development sites, for response and management purposes. The information concerning flowlines and isolation

valves shall be held confidentially by the City and shall only be disclosed in the event of an or to responders or for the training of responders. The City shall deny the right of inspection of the as-built facilities maps to the public pursuant to C.R.S. § 24-72-204.

- C. Detailed information addressing each reasonable potential emergency that may be associated with the operation. This may include any or all of the following: explosions, fires, gas, oil or water pipeline leaks or ruptures, hydrogen sulfide or other toxic gas emissions, hazardous material vehicle accidents or spills, or natural disasters. A provision that any spill outside of the containment area, that has the potential to leave the facility or to threaten waters of the state, or as required by the City-approved Plan shall be reported to the local dispatch and the COGCC Director in accordance with COGCC regulations.
- D. Detailed information identifying access, and health care facilities anticipated to be used.
- E. A project-specific plan for any project that involves drilling or penetrating through known zones of hydrogen sulfide gas.
- F. A statement and detailed information indicating that the Operator has adequate personnel, supplies, and training to implement the Plan immediately at all times during construction and operations.
- G. The Operator shall have current Material Safety Data Sheets (MSDS) for all chemicals used or stored on a Well Site. The MSDS sheets shall be provided immediately upon request to City officials, a public safety officer, or a health professional as required by COGCC Rule 205.
- H. *Public Notification.* The Plan shall include a provision establishing a process by which the Operator notifies surrounding neighbors to inform them about the on-site operations and provide sufficient contact information for surrounding neighbors to communicate with the Operator.
- I. All training associated with the Plan shall be coordinated with the City and the applicable emergency responders.
- J. A provision obligating the Operator to reimburse the appropriate agencies for their expenses resulting from the Operator's operations, to the extent required by Colorado Revised State Statutes.
- K. Operator shall provide the City with its shutdown protocols and promptly notify the City of any shut downs that would have an impact to any area beyond the confines of the Well Site.
- L. *Emergency Evacuation Plan.* Operator shall provide a copy of an emergency evacuation plan for the Well Site. Any evacuation plan detailing all persons to be notified in the event of an evacuation, including but not limited to, all persons residing within one-half (1/2) mile of the edge of construction or surface disturbance will be handled by the OEM.
- M. *Fires and Explosions Reporting.* Any accident or natural event involving a fire, explosion or detonation requiring emergency services or completion of a COGCC Form 22 shall be reported to the City LGD within 24 hours of the conclusion of an incident. This report shall include such specifics, to the extent available:

- i. Fuel source
- ii. Location
- iii. Proximity to residences and other occupied buildings
- iv. Cause
- v. Duration
- vi. Intensity
- vii. Volume
- viii. Specifics and degree of damage to properties, if any beyond the Well Site
- ix. Injuries to person(s)
- x. management response; and
- xi. Remedial and preventive measures to be taken within a specified amount of time The Operator shall provide the City with an additional report containing the information above after the conclusion of the accident or natural event if lasting more than 24 hours.

13. *Transportation and Circulation.* The Operator will comply with all Transportation and Circulation requirements as contained in the City Unified Development Ordinance as may be reasonably required by the City's Traffic Engineer and will comply with all applicable hazardous material regulations. The Operator will submit a traffic control plan to the City that includes detailed descriptions of all proposed access routes for equipment, water, sand, waste fluids, waste solids, mixed waste, and all other material to be hauled on the public streets and roads of the City. The Operator will obtain necessary access permits, which the City will not unreasonably withhold.

A. *Traffic Control Plan.* The traffic plan shall include the following:

- i. Estimated weights of vehicles when loaded, a description of the vehicles, including the number of wheels and axles of such vehicles and trips per day.
- ii. Detail of access locations for each well site including sight distance, turning radius of vehicles and a template indicating this is feasible, sight distance, turning volumes in and out of each site for an average day and what to expect during the peak hour.
- iii. Truck routing map and truck turning radius templates with a listing of required and determined that certain improvements are necessary at intersections along the route.
- iv. Restriction of non-essential traffic to and from Well Sites to periods outside of peak am and pm traffic periods and during school hours (generally 7-8am and 3-6pm) if Well Site or access road are within 1,000 ft. of a school property. Identification of need for any additional traffic lanes, which would be subject to the final approval of the City's engineer.

- v. *Public Improvements.* In the event public road improvements are necessary to accommodate an Operation, and before work will be permitted within any City right-of-way, the Operator shall draft engineered drawings to be prepared by a Colorado licensed civil engineer, in conformance with City standards, for review and approval by the City.
 - vi. *Oil and Gas Well Site Access.* Access to any property from a City street requires a City-issued access permit. Access Permits are revocable upon issuance of a stop work order or if other Oil and Gas Permit violations occur. The permitting and construction of accesses shall comply with the City's Engineering Construction Standards and Specifications and design standards.
 - vii. *Private Access Roads.* Access points to public roads must be located, improved and maintained according to standards in the Unified Development Ordinance.
 - viii. *State Highway Access.* Where a Site's access is directly to a state highway, the Operator must procure and maintain an approved State Highway Access Permit.
 - ix. *Haul Routes.* Operators shall only use roadways for haul routes that are identified on a City-approved traffic control plan.
- B. *Oversize/Overweight Vehicles.* Any oversize or overweight vehicle making use of any City street shall obtain an Oversized, Overweight and Longer Vehicle Combination Permit from the City.
 - C. *Mud Tracking.* The Operator shall take all practicable measures to ensure that vehicles do not track mud or debris onto City streets. If mud or debris is nonetheless deposited on City streets, in excess of *de minimus* levels, the streets shall be cleaned immediately by the Operator. If for some reason this cannot be done, or needs to be postponed, the City shall be notified of the Operator's plan for mud removal.
 - D. *Chains.* Traction chains from heavy equipment shall be removed before entering a City street.

14. *Flowback Best Management Practices*

- A. Before flowback, Operator will notify appropriate local fire district at least 24-hours before production flowback is scheduled to begin for the first time on a well pad. Operator will conduct a pre-startup safety review (PSSR), which will review facility and equipment spacing requirements and safety procedures.
- B. During flowback, Operator will utilize gas monitors that are capable of detecting Lower Explosive Level and H₂S, which emit an audible tone linked to cell phones to notify people on and off location. Operator will also send flowback gas to sales pipeline when possible. The production facility will be built before flowback and flowback equipment will be tied into Combustors. Operator will utilize automatic tank gauging to measure tank levels and have 24-hr manned operations. The production facilities will be capable of remote ESD (emergency shut down).

City of Northglenn

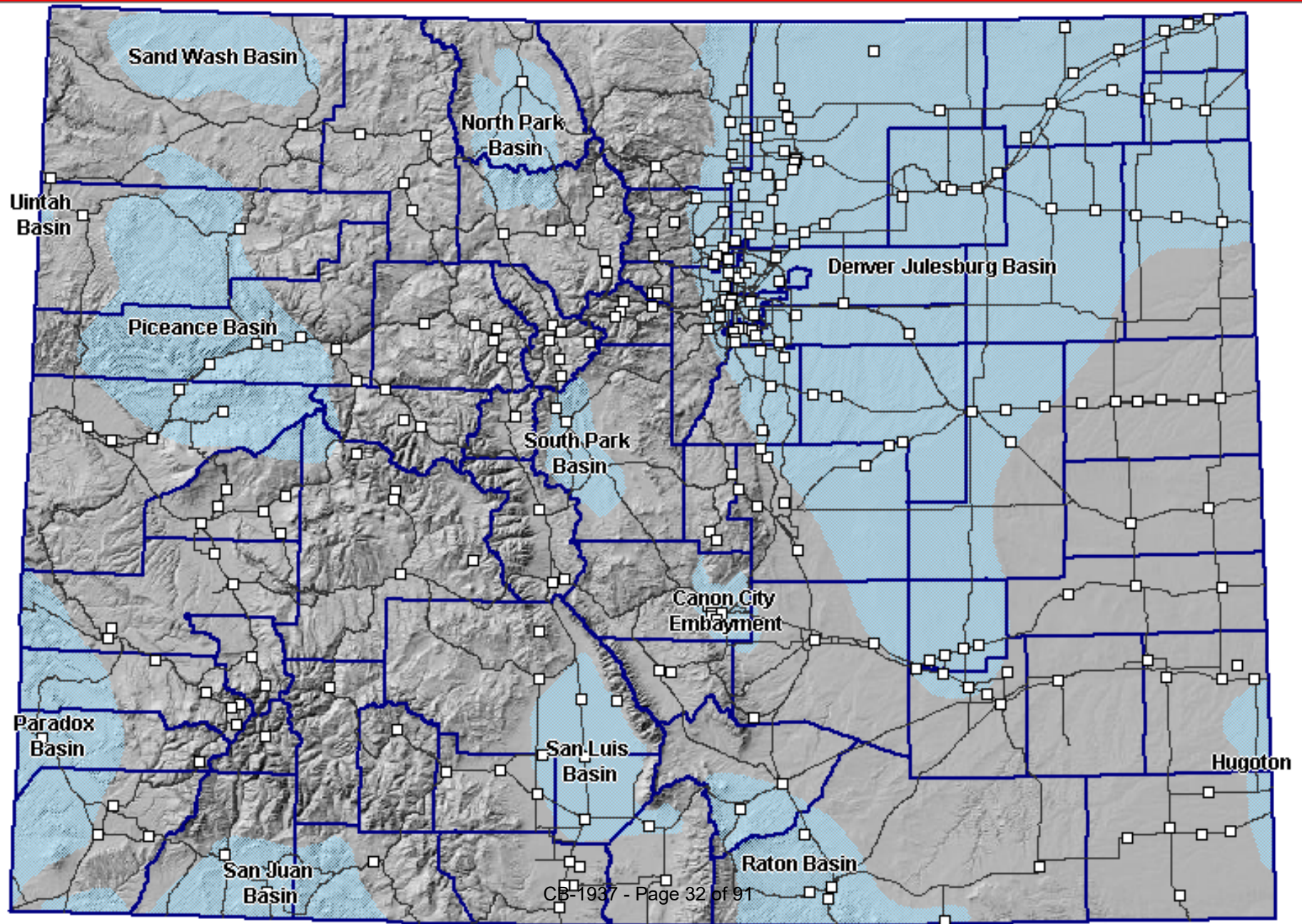
Discussion of oil and gas regulations

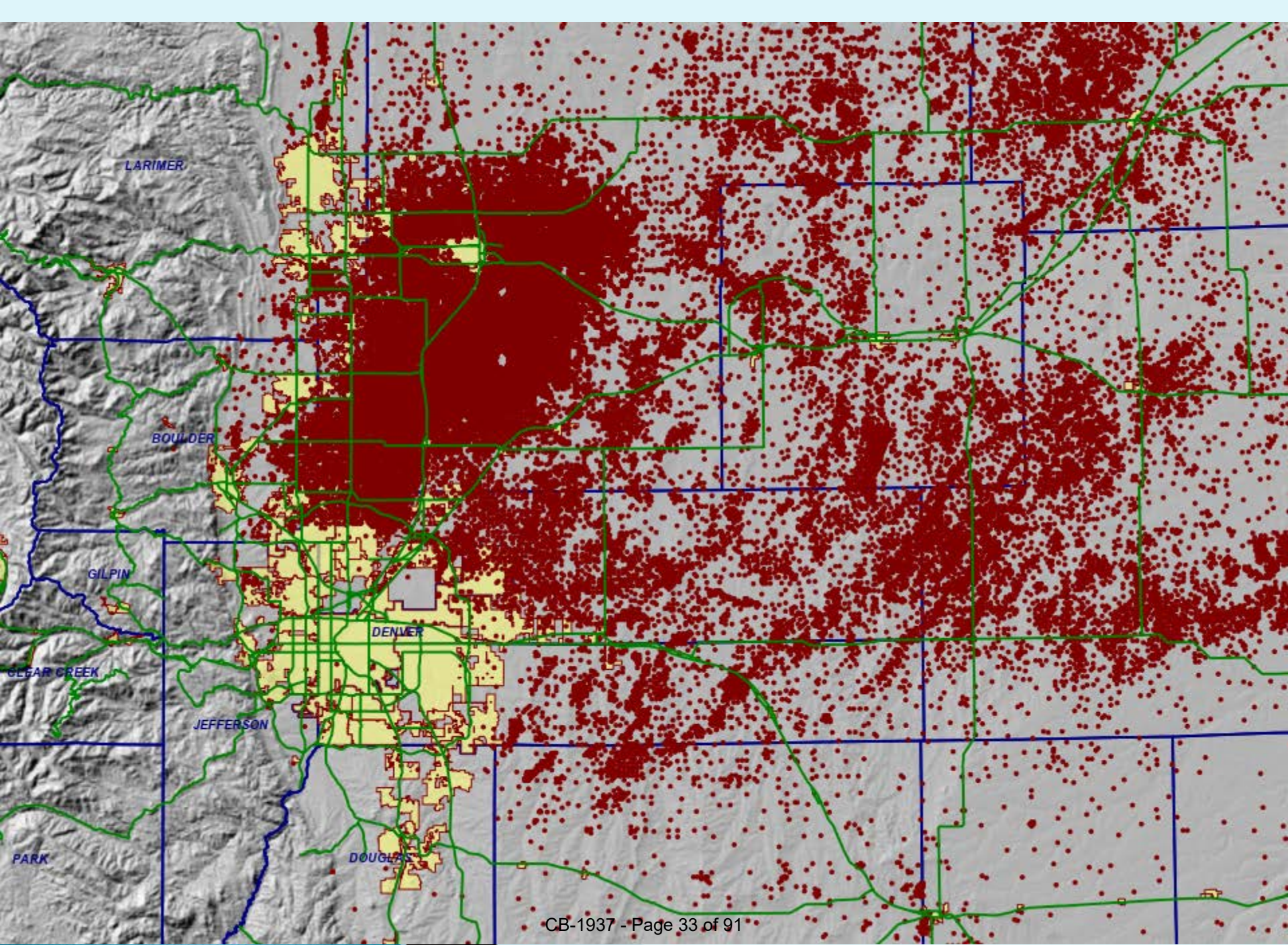
Matthew Sura
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mattsura.law@gmail.com

Outline of presentation

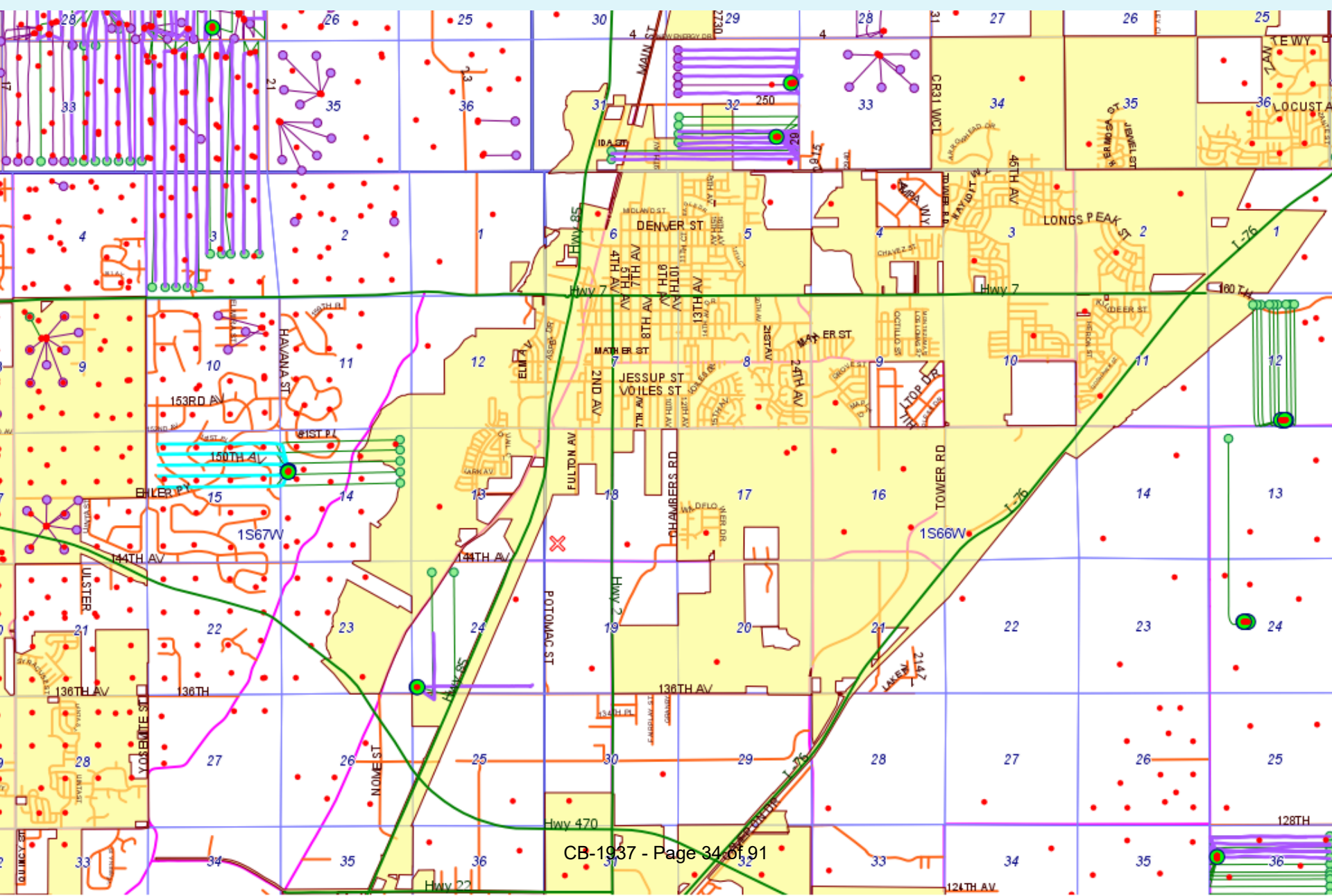
- ▶ Introduction
- ▶ Senate Bill 19–181
- ▶ Proposed regulations
- ▶ Proposed BMPs

Colorado's Oil and Gas Basins

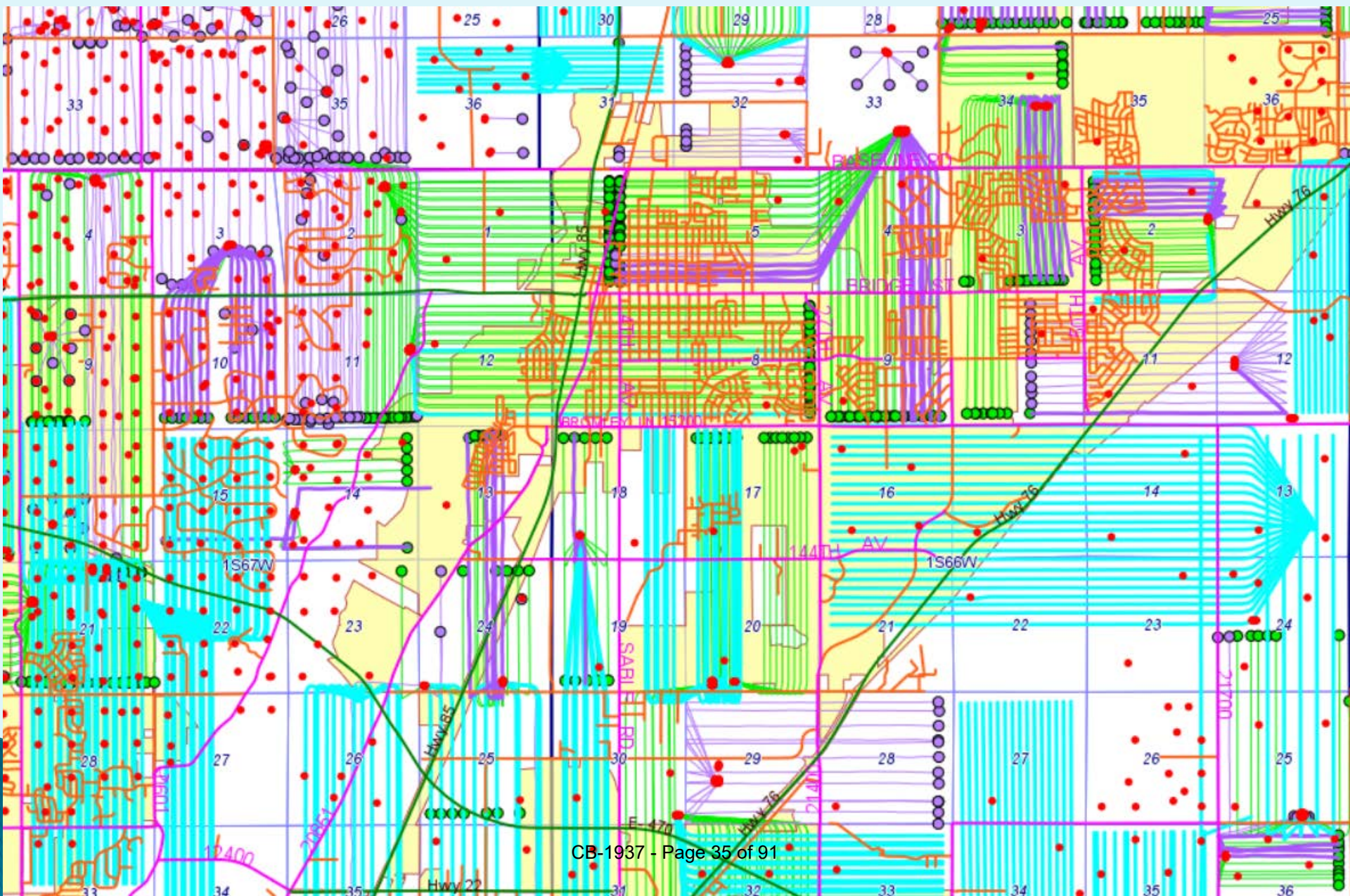


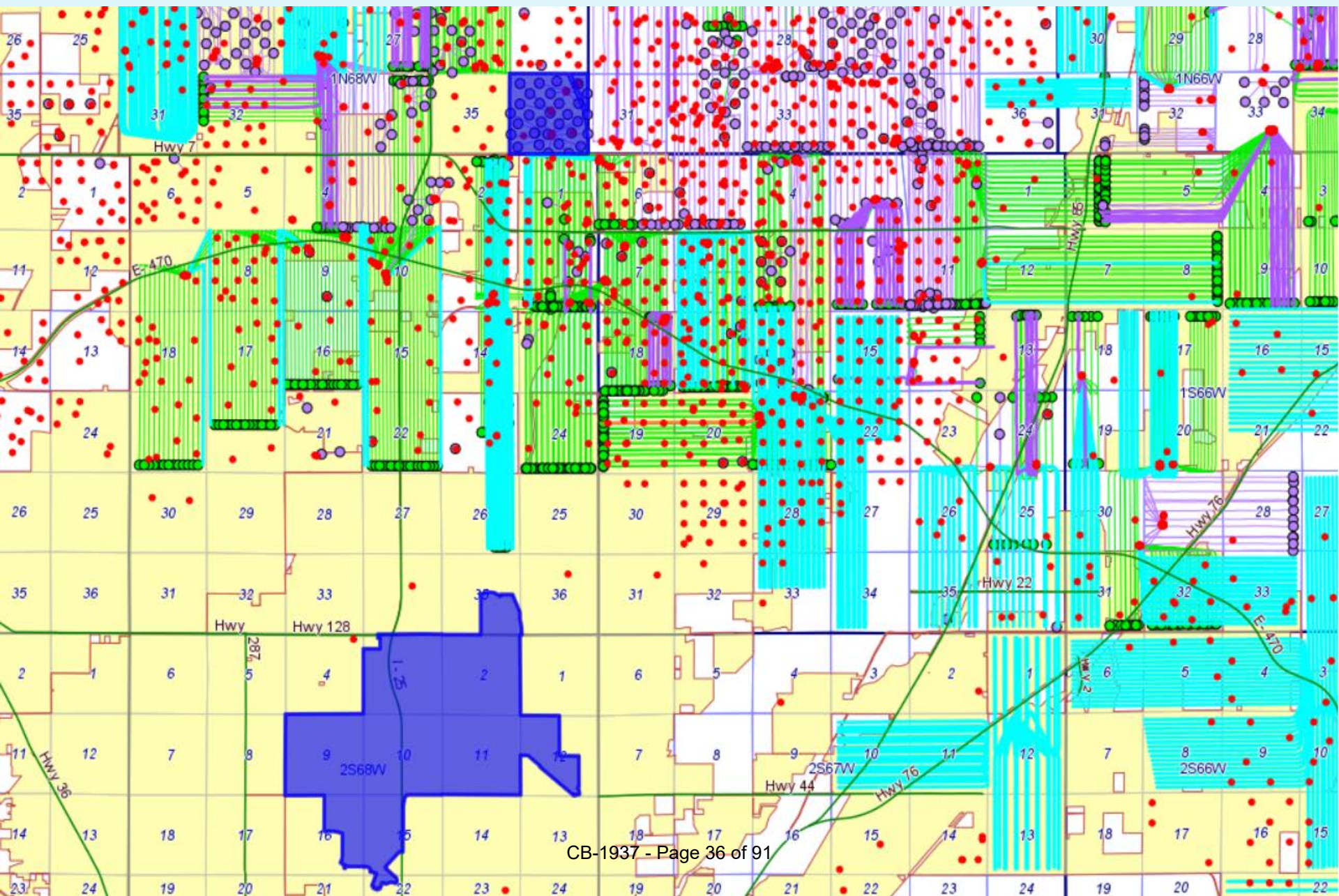


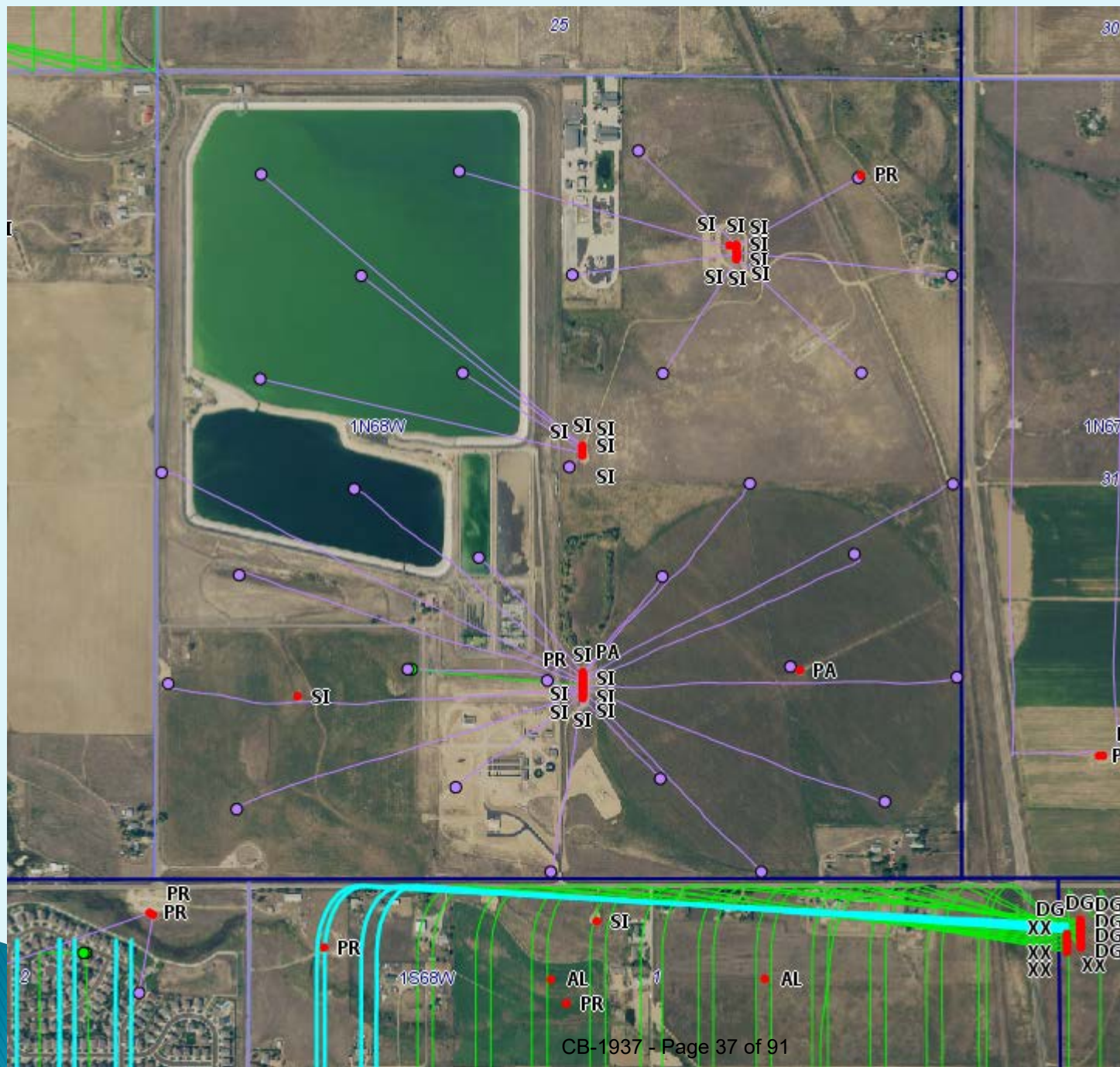
Brighton in August, 2014



Brighton in August, 2019









Oil and Gas Regulation

- ▶ Oil and gas development is a highly-industrialized activity that is primarily regulated by three entities:
 1. Colorado Oil and Gas Conservation Commission
 2. Colorado Department of Public Health and Environment
 3. Local Government

Senate Bill 19-181

Protecting Public Welfare in Conduct of Oil and Gas Operations

Senate Bill 181 was signed into law on
April 16, 2019

What could this mean for
the City of Northglenn?

Outline of the Bill

1. REFORM THE COGCC MISSION TO PROTECT PUBLIC HEALTH AND ENVIRONMENT
2. GIVE LOCAL GOVERNMENTS CLEAR REGULATORY AUTHORITY OVER OIL AND GAS AND ENDS STATE PREEMPTION.
3. REFORM FORCED POOLING LAWS

Senate Bill 181 impacts on Local Governments

1. Regulation of siting and surface impacts: Local land use regulations may be used to locate facilities (zoning) and mitigate impacts
2. No state preemption: Explicitly authorizing local government regulation that is more stringent than state standards
 - *State standards become minimum requirements*

Senate Bill 181 impacts on Local Governments

- ▶ Local government regulation of oil and gas siting and surface impacts as *necessary and reasonable*:
 - Location and siting of oil and gas facilities and locations
 - Mitigation of impacts on public health, safety and welfare
 - Regulations to protect water quality and source, noise, vibration, odor, light dust, emergency preparedness, security, traffic, transportation impacts
 - Receive technical assistance from the COGCC
 - Financial issues
 - Performance securities, indemnification, and insurance
 - May impose fees for both the direct and indirect costs of monitoring and inspections programs to address impacts
 - Power to enforce
 - Inspect oil and gas facilities and locations
 - Assess penalties to enforce local regulations

Northglenn's current regulatory approach to oil and gas

- ▶ Section 11-3-6 in the Unified Development Ordinance was written in 2011.
- ▶ Allows oil and gas development in all zone districts
- ▶ Defers to COGCC decisions to avoid “operational conflict”
- ▶ Allows the Planning Commission to recommend conditions of approval.
- ▶ Decision made by City Council
- ▶ Allows penalties to be assessed for violations of Code or conditions of permit.

Proposed changes to Northglenn's regulations

▶ Reasonable regulations on oil and gas siting and surface impacts:

1. Location: Require proposed location is outside of residentially-zoned areas and at least 1,000 feet from homes. This would make regulations more consistent with regulations recently passed in Adams County.
2. Mitigation of impacts: Northglenn should require best management practices that Operators are voluntarily agreeing to in cities such as Commerce City, Brighton, Aurora, and Dacono. Require that proposed development is compatible with adjacent land uses and will not significantly degrade public health, safety, welfare or the environment.
3. Financial issues: Require insurance and performance security to cover emergencies. Set reasonable fees for inspections.

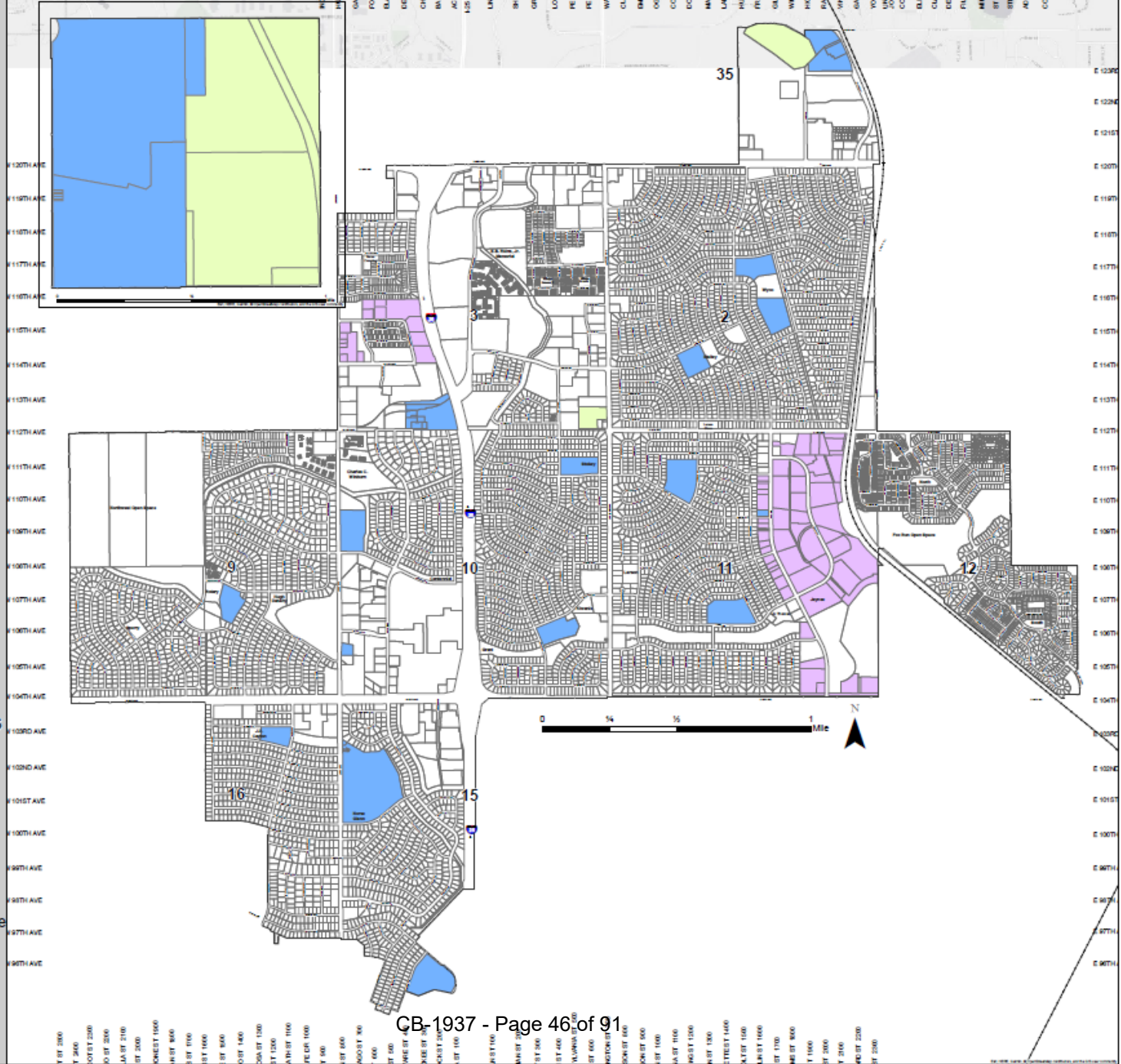
CITY OF NORTHGLENN ZONING DISTRICT MAP

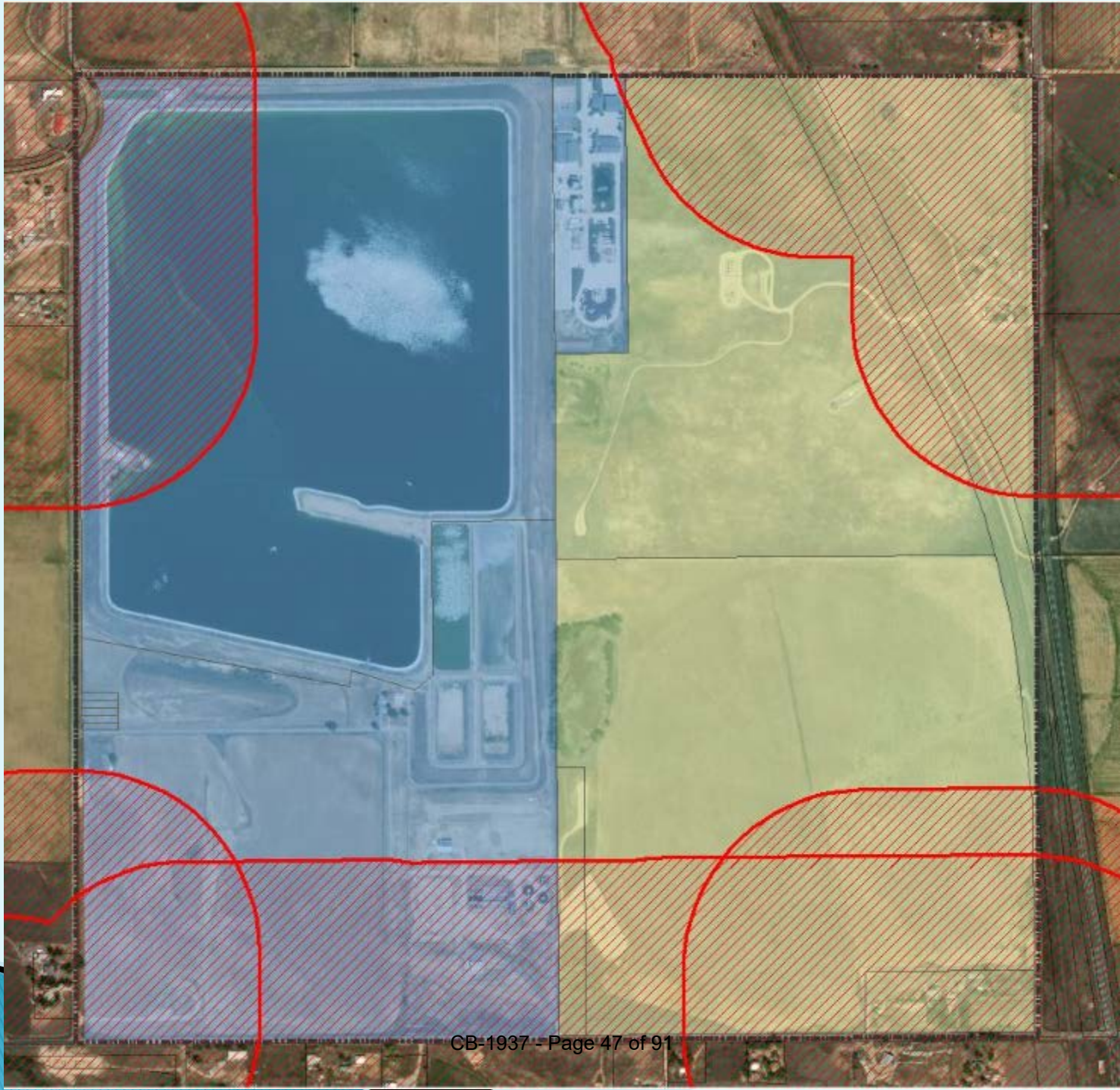
September
2019

Oil & Gas Eligible Districts

- IN
- PF
- AG
- Not Eligible

SECTION 36 - WELD COUNTY





Financial Issues

1. Requirements in 11–3–6(d)(2)
 - **Application Fee**
 - **Cost Reimbursement Agreement**
 - **Insurance**
 - **Financial Assurance**
 - **Inspection Fees**
2. Operator required to implement continuous air quality monitoring

Best Management Practices

BMP's Background

- ▶ 90+ specific practices required by the document
- ▶ The BMP Exhibit was the result of numerous negotiations with Operators over the past five years.
- ▶ The BMP's were derived from code regulations from other cities and counties in Colorado, state regulations, and previous agreements signed between operators and cities, and general common best industry practices

BMP Categories (12)



Air quality



Water quality protection



Use of pipelines



Emergency Response Plan



Inspections



Transportation & Circulation



Noise mitigation



Community Outreach



Reclamation



Risk Management



Safety



Visual mitigation

Air Quality

- ▶ **Ambient Air Sampling** required at all sites
- ▶ **Electric Equipment.** All permanent production equipment must utilize electric line power in order to mitigate noise and to reduce emissions.
 - Includes things like compressors, motors and artificial lift equipment,
 - Drilling rigs near homes
- ▶ **Green completions**
- ▶ **Dust and Odor controls**
- ▶ **No-bleed pneumatic valves**
- ▶ **No tanks**

Water Quality

- ▶ **Chemical Disclosure and Storage.**

- All fracturing chemicals disclosed to the City before chemicals are transported to the Well Site.
- Operator shall not store fracturing chemicals, flowback from hydraulic fracturing, or produced water in the City limits.
- Operator must remove all hydraulic fracturing chemicals from a Well Site within thirty (30) days following the completing of hydraulic fracturing at that Well Site.

- ▶ **Test all available sources within ½ mile**

- ▶ **Test all plugged and abandoned wells**

Water Quality

- ▶ List of specifically prohibited hydraulic fracturing chemicals, known to have adverse health risks:

Ingredient Name	CAS #
Benzene	71-43-2
Lead	7439-92-1
Mercury	7439-97-6
Arsenic	740-38-2
Cadmium	7440-43-9
Chromium	7440-47-3
Ethylbenzene	100-41-4
Xylene-F	1330-20-7
1,3,5-trimethylbenzene	108-67-8
1,4-dioxane	123-91-1
1-butanol	71-36-3
2-butoxyethanol	111-76-2
N,N-dimethylformamide	68-12-2
2-ethylhexanol	104-76-7
2-mercaptoethanol	60-24-2
benzene, 1,1'-oxybis-, tetrapropylene derivatives, sulfonated, sodium salts (BOTS)	119345-04-9
butyl glycidyl ether	8/6/2426
polysorbate 80	9005-65-6
quaternary ammonium compounds, dicocoo alkyldimethyl, chlorides (QAC)	61789-77-3
hexamethylene triamine penta methylene phosphonic acid (BMPA)	35657-77-3
diethylenetriamine penta (methylene-phosphonic acid)(DMPA)	15827-60-8
FD&C blue no. 1	3844-45-9
Tetrakis(triethanolamino) zirconium(IV) (TTZ)	101033-44-7

Water Quality

- ▶ **Closed-Loop Pitless Systems for the Containment and/or Recycling of Drilling Fluids.**
 - Closed loop, pitless systems required, in order for containment and/or recycling of all drilling, completion, flowback and produced fluids.
 - Operator shall recycle fluids to the maximum extent practicable
 - Operator shall not store waste onsite for periods longer than 30 days.
- ▶ **Containment Berms.**
 - The Operator shall utilize steel-rim berms around all permanent separation and storage equipment at the Well Sites
 - With capacity to contain 1.5 times the maximum volume of liquids that such equipment will contain at any given time plus overflow capacity.
 - No potential ignition sources installed inside the secondary containment area

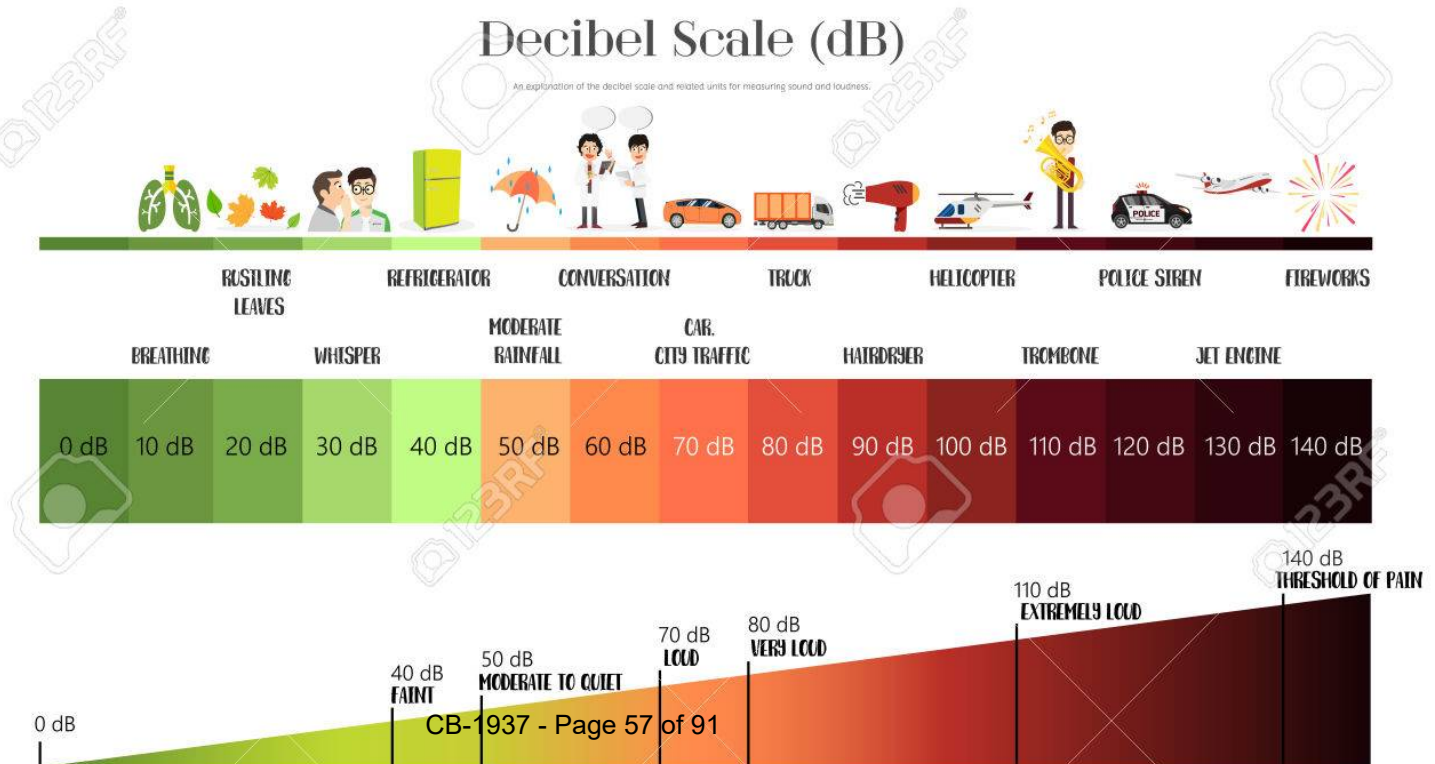
Pipelines

► Use of Pipelines.

- Requirement for the utilization of pipelines on all sites
- To eliminate the need for excessive storage tanks
- To eliminate the need for tanker trucks
- For oil, gas, and produced water
- Must be complete prior to production phase
- Contingent on council approval of a Conditional Use Permit (CUP) for the Pipelines.

Noise Mitigation

- ▶ Sound levels may not exceed 55dB(A), or 4 dB(A) higher than baseline ambient sound measured at 1,000 feet from the sound walls at the Well Site (whichever is greater)
- ▶ Use of Quiet Fleet technology if within 1,320 ft of residential building
- ▶ Submittal of a sound study required to assess the potential impacts
 - Recommendation for size and location of sound walls an outcome of the study



Transportation and Circulation

- ▶ **Traffic Control Plan.**
- ▶ Traffic plan required, which includes the following below:
 - Estimated weights and description of vehicles
 - Detail of access locations for each well site
 - Truck routing map
 - Restriction of non-essential traffic to and from Well Sites to periods outside of peak am and pm traffic periods and during school hours
 - Potential public improvements required
 - City or state access permits
 - Haul routes.
- ▶ **Pipelines required**

Visual Mitigation

- ▶ **Visual Mitigation Methods.**
- ▶ Example of visual mitigation methods described. Will be more of a site specific application.
 - Use of low-profile tanks (of no more than 16ft in height), facility painting, vegetative or structural screening, land berming and landscaping.
 - Earthen berm located around the perimeter of the fence
 - Establishment and proper maintenance of ground cover, trees and shrubs for screening and aesthetic purposes; and
 - Designing the Oil and Gas Facility to utilize natural screens where possible.
 - Construction of fences for use with or instead of landscaping or berming.
- ▶ No pumpjacks allowed.

Community Outreach

- ▶ **Outreach to Affected Residents:**
- ▶ Residents and business owners within ¼ mile (1,320 feet) of a location
- ▶ Provide at least 7–14 days advanced notice and community awareness to affected residents on a number of items

- ▶ **Bi-Annual Updates to City:**
- ▶ Operator provides a formal written update to the City Council on a Bi-Annual basis as to the progress of the project, regarding
 - any reportable spills or reportable accidents at locations
 - any notice of alleged violations from the City or COGCC
 - summary of complaints to the Operator and COGCC

Reclamation

- ▶ **Final Reclamation Plan.** Required not later than six (6) months after plugging and abandoning the last New Well, weather and planting season permitting.
 - Removal of Pipelines. Pipelines, gathering lines and flowlines shall be removed after one year of non-use when last well utilizing lines are plugged and abandoned
 - Temporary Access Roads. Temporary access roads associated with oil and gas operations at the Well Sites shall be reclaimed and revegetated to the original state within a reasonable amount of time

Questions?

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SPONSORED BY: MAYOR ESQUIBEL

COUNCILMAN'S BILL

ORDINANCE NO.

No. CB-1937
Series of 2019

Series of 2019

A BILL FOR AN ORDINANCE REPEALING AND REENACTING SECTIONS 11-3-6 AND 11-7-3 OF THE NORTHGLENN MUNICIPAL CODE REGARDING OIL AND GAS OPERATIONS

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NORTHGLENN, COLORADO, THAT:

Section 1. Section 11-3-6 of the Northglenn Municipal Code is hereby repealed and reenacted to read as follows:

11-3-6 Oil and Gas Operations

(a) Purpose

(1) These regulations are enacted to provide for the safety, and preserve the health, safety and welfare of the present and future residents of the City.

(2) It is recognized that under Colorado law that the surface and mineral estates are separate and distinct interests in land and that one may be severed from the other. Owners of subsurface mineral interests, including oil and gas, have certain legal rights and privileges, including the right to use that part of the surface estate reasonably required to extract and develop their subsurface mineral interests subject to compliance with the provisions of these regulations and any applicable statutory and regulatory requirements.

(3) Similarly, owners of the surface estate have certain legal rights and privileges, including the right to have the mineral estate developed in a reasonable manner and to have adverse land use impacts upon their property, associated with the development of the mineral estate, mitigated through compliance with these regulations

(4) Municipal governments have a recognized, traditional authority and responsibility to regulate land use within their jurisdiction through the Local Government Land Use Control Enabling Act, Article 20 of Title 29, C.R.S.; Part 3 of Article 23 of Title 31 (municipal zoning powers); C.R.S. § 31-15-103 (municipal police powers); C.R.S. § 31-15-401 (municipal police powers); and C.R.S. § 31-15-501 (municipal power to regulate businesses); and C.R.S. § 34-60-106 (oil and gas operators must receive local government approval for drilling permit); and C.R.S. § 34-60-131 (local government authority to exceed state oil and gas regulations). These regulations are intended as an exercise of this land use authority.

(5) The City acknowledges the authority of the Colorado Oil and Gas Conservation Commission (COGCC) and the application of its rules to oil and gas drilling and production operations within the City's boundaries.

(b) General Provisions

(1) The provisions of this Section shall apply to all oil and gas exploration and production operations proposed or existing within the City limits.

(2) Legal nonconforming uses. Oil and gas facilities within City limits and operational prior to December 1, 2019, will be considered legal nonconforming uses.

(3) Where provisions in this Section are in conflict with other provisions of this Code or other applicable regulations, the more restrictive, or that provision which results in the higher standard, shall apply.

(4) The City Council shall adopt by separate resolution the Oil and Gas Best Management Practices ("BMP"). The BMP Exhibit will be posted on the City's website. The City Council may by resolution update the Oil and Gas BMP Exhibit as necessary to reflect changes in technology, state regulation, and industry practices.

(c) Oil and Gas Permit Required

(1) New Oil and Gas Facilities

(A) It shall be unlawful for any person to drill a new well, construct a new facility or install new accessory equipment or structure within the corporate limits of the City, unless an oil and gas permit has been obtained pursuant to this Section. A separate oil and gas permit shall be required for each well or production facility that has not been previously permitted under this Section except as outlined in 11-3-6(c)(1)(D) and 11-3-6(c)(2) below.

(B) If more than one well or production facility is proposed at the same time, the applicant may submit one application for multiple wells and facilities; however, a separate fee shall be required for each drill pad site included in the application. The City will issue a multiple oil and gas operations permit that notes the name and location of each well or production facility.

(C) Any such permit issued pursuant to this Section shall encompass within its authorization the right for the operator, his or her agent, employee, subcontractor or independent contractor or any other persons to perform that work necessary in the drilling, completion or maintenance operations.

(D) For the purpose of this Section, the installation of tanks, heaters, separators and other accessory equipment shall be construed as extensions

to oil and gas wells and shall accordingly be subject to the same applications, review, permit, regulations, and standards. The application for these accessories when intended to be installed at the same time as the oil or gas well may be merged with an application for an oil or gas permit and shall not require an additional permit fee.

(2) Modification to Existing Well Sites

(A) When a well or Well Site is existing with an approved oil and gas permit use, any plugging and abandoning or recompleting of a well and relocation of accessory equipment or gathering lines and transmission lines does not require a new permit so long as all applicable regulations of this jurisdiction and the State are met, and the operator shall submit a revised site and Operating Plan to the City depicting any changes from the approved oil and gas permit. This is an administrative approval and does not require any additional public hearings. Upon receipt of the amended site plan and Operating Plan, the City shall issue an existing use site plan order as provided in Subsection 11-3-6(f) of this Section.

(B) If any changes are made to a legal nonconforming well or a well to which an existing use site plan order has been issued, i.e., recompleting of a well, or relocation of accessory equipment or gathering lines and transmission lines occurs, the operator shall apply for an oil and gas permit. By enactment of this Section, the City hereby approves any well, equipment or facility drilled or constructed prior to the enactment of this Section that occurred prior to annexation of additional acreage within the City.

(C) When an oil and gas permit has been granted for a well, reentry of such well for purposes of plugging and abandoning, recompleting, reworking, activating or converting the well shall not require a separate oil and gas permit.

(D) The oil and gas permit are limited to the facilities as shown in the approved plan. To the extent the applicant desires, after initial completion of a well, to place additional equipment on a tank battery or wellhead location, which was not shown in the approved plan, the applicant must, except in a situation where additional temporary equipment is necessary for a period of 14 days or less, submit a revised site and Operating Plan to the City depicting any changes from the approved oil and gas permit. In the event that the staff concludes that the proposed change will not cause additional adverse impacts to public health, safety or welfare or the environment, the change can be accomplished administratively. Upon receipt of the amended site plan and Operating Plan, the City shall issue an existing use site plan order as provided in this Section. In the event the staff concludes the proposed change would cause an additional adverse impact to public health, safety, welfare or the environment, the proposed change will trigger new notice and require a new oil and gas permitting process.

(3) Terms and Conditions of the Oil and Gas Permit

(A) An oil and gas permit shall become null and void two years after approval if oil and gas development at the site for which the permit was issued does not substantially commence.

(B) The oil and gas permit shall automatically expire with the abandonment and reclamation of the associated well.

(C) The granting of an oil and gas permit shall not relieve the operator or owner of a well, production facility, pipeline or gathering line from otherwise complying with all applicable regulatory requirements of the City, the State or the United States.

(D) Within 30 days after the well is completed and equipped, the applicant shall provide to the City as-built drawings showing all facilities, pipelines, flow lines and gathering lines which the applicant has placed on the land subject to this permit. These as-built drawings shall be the same as submitted to the COGCC.

(E) The oil and gas permit and/or existing use site plan order required by this Section is in addition to any permit which may be required by any other provision of this Code or by any other governmental agency.

(F) By acceptance of any oil and gas permit and/or an existing use site plan order issued pursuant to this Section, the operator or owner of any well, production facility, pipeline or gathering line expressly stipulates and agrees to be bound by and comply with the provisions of this Section, and any subsequent amendments shall be deemed to be incorporated. The terms of this Section shall be deemed to be incorporated in any oil and gas permit or existing use site plan issued pursuant to this Section with the same force and effect as if this Section was set forth verbatim in such oil and gas permit or existing use site plan.

(d) Oil and Gas Permit for a New Oil and Gas Operation - Application Submittal Requirements and Filing Fees

(1) Initial Application Form and Authorization

Every application for an oil and gas permit issued pursuant to this Section shall be in writing on a form supplied by the City, signed by the operator, or some person duly authorized to sign on his or her behalf, and filed with the Department of Planning and Development. If no form is available, Operator may file in its own format the following information that shall be submitted:

(A) The operator's name and address and, if the operator is a corporation, the state of incorporation and, if the operator is a partnership, the names and addresses of the general partners;

(B) The name, address, telephone number, fax number and e-mail address of the individual designated by the operator to receive notices;

(C) The aliquot legal description of the property to be used for the oil/gas operation and the assessor's parcel number for the property. Property recorded by plat shall also be identified by subdivision name and block and lot numbers;

(D) The well name(s);

(E) The mineral lessee's name and address;

(F) The name and address of the representative with supervisory authority over the oil and gas operation site activities and a 24-hour emergency phone number;

(G) The name and address of the surface owner or owners; and

(H) The name, address and telephone number of the person or firm designated by the operator to file the oil and gas permit application and prepare the site plan and related exhibits.

(2) Fees and Financial Assurances

Every applicant shall provide the following fees and financial assurances:

(A) Application Fee

Every application shall include a required fee in the amount of \$10,000.

(B) Cost Reimbursement Agreement

Every applicant shall submit a signed cost reimbursement agreement provided by the City, but such reimbursement agreement shall only apply to the use by the City of outside consultants to review the application, if necessary. The application fee and required cost reimbursement agreement must be received by the Department of Planning and Development in order to process the application.

(C) Insurance

Prior to commencement of any work, the Operator will provide liability and insurance under the conditions, and in the amounts, necessary to protect against the risks and liabilities associated with the proposed activity.

(D) Financial Assurance

Prior to the commencement of any work, including well pad construction at any permitted Well Site, Operator will provide the City with a single surety

applicable for all Well Sites in the form of a letter of credit or bond in the amount of three million dollars (\$3,000,000.00) to insure the immediate availability of finances for any costs incurred by the City following a Financial Setback of the Operator.

- (i) Financial Setback shall be defined as the Operator filing for protection under the bankruptcy laws, making an assignment for the benefit of creditors, appointing or suffering appointment of a receiver or trustee over its property, filing a petition under any bankruptcy or insolvency act or having any such petition filed against it which is not discharged within ninety (90) days of the filing thereof.
- (ii) Operator shall notify the City of the existence of a Financial Setback within five (5) business days of the Financial Setback.
- (iii) The letter of credit or bond shall remain in effect until all drilling operations at all New Wells have been completed, and all Well Sites for which work has commenced are in the production phase, without exception.
- (iv) Upon the occurrence of a Financial Setback, the City may call upon the surety effective immediately upon written notice to the Operator for the purpose associated with the need to secure Well Sites, associated Well Site lands and infrastructure or as a demonstrated need to protect the public welfare and safety.
- (v) This financial assurance provision in a form accepted by the City is not a substitute for any bonding required by the state regulatory agencies for plugging and abandoning wells.
- (vi) The Operator shall comply with all state regulatory agencies bonding requirements.
- (vii) The bond or letter of credit shall be released within ten (10) business days of Operator's written request following completion of the last Well Site and the wells have been turned to production.

(E) Inspection Fees

Operator shall reimburse the City for all inspection costs reasonably incurred to inspect the Well Sites to determine compliance with this Agreement and any permits issued by the City. Such fees shall include actual costs incurred by the City, including employee time, employee supervision, necessary equipment rental, and overhead. Where a well is plugged and abandoned, no fees will be imposed thereafter.

(F) Road Improvements and Maintenance Agreement

Operator must sign an agreement to pay for ongoing road repair and maintenance costs attributable to its operations. The City will conduct periodic impact assessments with the Operator to determine the extent of any damage accruing to the road caused by the Operator's activities. Operator may conduct baseline road condition assessments with a third-party contractor to define existing road conditions. Operator will pay the City for the cost of the actual repairs for the assessed damage or else arrange and pay the cost of such repairs itself with a contractor acceptable to the City.

(3) Substantive Application

Upon having submitted the materials and fee required by this Article, an application for an oil and gas permit pursuant to this Section shall be filed with the Department of Planning and Development and shall include the following information:

(A) Site Plan

The site plan shall be submitted on one or more plats or maps, at a scale not less than one inch to 50 feet, showing the following information:

- (i) A site plan of the proposed operation showing the location of all improvements and equipment, including the location of the proposed wells and other facilities, and including but not limited to pumps, motors, electrical power lines, tanks, flowlines, gathering lines, compressors, separators and storage sheds. All existing tank batteries and transmission and gathering lines within 660 feet of the well site shall also be shown.
- (ii) The location of layout, including, without limitation, the position of the drilling equipment and related facilities and structures, if applicable.
- (iii) The location and description of all existing improvements and structures within 1,000 feet of the well, as well as proof that the new well or production facility meets all applicable setback requirements from any building unit as defined by the COGCC.
- (iv) Existing utility easements and other rights-of-way of record, if any, within a radius of 660 feet of the proposed well.
- (v) The location of existing irrigation or drainage ditches within 1,000 feet of the well site or production site, if any.
- (vi) The applicant's drainage and erosion control plans for the well site or production site, if applicable. The applicant may submit the plan required by COGCC to meet this requirement.

- (vii) Location of access roads in accordance with the provisions of Section 11-3-6(l) of this Section.
- (viii) The location of existing oil and gas wells as reflected in COGCC records within a 1,000-foot radius of the proposed location for the well and existing lease boundaries.
- (ix) The names of abutting subdivisions or the names of owners of abutting, unplatted property within 300 feet of the proposed of the well site or production site.
- (x) The date the site plan was prepared and any revision numbers to the site plan, when applicable.
- (xi) The location of existing wildlife and nature areas within 1,000 feet of the well site or production site, if any.
- (xii) The location of the well site or production site in relation to existing lease boundaries.
- (xiii) A true north arrow.

(B) Traffic Control Plan

Operator shall prepare a plan showing public and private roads that traverse and/or provide access to the proposed operation and a plan showing the estimated number of vehicle trips per day for each type of vehicle, proposed transportation routes to and from the site, and measures to mitigate adverse impacts to traffic patterns and safety caused by the proposed operation.

- (i) The map showing all proposed transportation routes for access to and from the well site shall include those routes used for construction equipment and well drilling, completion and reworking equipment from the well/production site to the to the corporate limits of the City.
- (ii) All transportation routes which access the state highway system shall be required to obtain necessary Colorado Department of Transportation (CDOT) access permits. A vendor selected by Operator from a list of vendors that is pre-approved by the City shall prepare a Traffic Impact Study which shall clearly identify and distinguish impacts to City roads and bridges related to Facility construction, operations and ongoing new traffic generation. Traffic impact studies shall be prepared in accordance with City standards and requirements or other guidelines found in the Applicable Code. The study shall include a traffic mitigation plan addressing transportation impacts that will typically include, but not be limited to, a plan for traffic control, the receipt of all necessary permits,

ongoing roadway maintenance and improving or reconstructing City roads, including providing financial assurance.

(C) Written Narrative

The Applicant shall refer to the Oil and Gas BMP Exhibit for additional details on the following submittals and plans:

- (i) A title block or heading containing the operator's and surface owner's names and addresses, the well name and the legal description of the well/production site location.
- (ii) Copies of the approved or submitted COGCC forms 1A, and 2 or 2A or 10, as applicable. If the applicant has not received approval from COGCC, the City shall process the application conditioned on proof of an approved COGCC permit.
- (iii) An Operating Plan.
- (iv) A copy of the surface use agreement or acknowledgement, including reception number, that a surface use agreement has been recorded with the applicable County Clerk and Recorder's Office.
- (v) A list of all permits or approvals obtained or yet to be obtained from local, state or federal agencies, including any exceptions or variances that are required.
- (vi) Emergency Response Plan. Operator shall prepare an Emergency Response Plan that is mutually acceptable to the Operator and the appropriate fire protection district and the Police Department that includes a list of local telephone numbers of public and private entities and individuals to be notified in the event of an emergency, the location of the well and provisions for access by emergency response entities. The applicant must provide a commitment to serve ("will serve") letter from the authority having jurisdiction for providing emergency services (fire protection and emergency medical services) for that facility.
- (vii) A plan for weed control at the well site.
- (viii) A sanitary facilities plan that complies with COGCC regulations.
- (ix) Verification of ownership of the mineral interest.
- (x) Nuisance Prevention Plan. Operator shall prepare a plan to manage noise, light and odor to prevent nuisance. Noise and odors shall be kept at or below the levels that would constitute a nuisance. The plan must include a baseline noise study as well as noise modeling

of equipment proposed for the site for drilling and completions.

- (xi) Electrification Plan. Operator shall identify all sources of electricity that will be brought to or used at the Well Site during all phases, including drilling, completion and production.
- (xii) Air Quality Mitigation Plan. Operator shall prepare an Air Quality Mitigation Plan which includes baseline air quality testing and a modeling assessment of air quality impacts of a related project per BMP 1C(iii) and a plan and schedule to maintain air quality, including a plan to minimize VOC emissions in compliance with the BMPs.
- (xiii) Waste Management Plan. Operator shall prepare a Waste Management Plan that identifies the projected waste from the site and plans for disposal of such waste.
- (xiv) Hazardous Materials Management Plan. Operator shall prepare a Hazardous Materials Management Plan that identifies all hazardous materials that will be brought on site, how they will be transported and used, and measures to prevent any release of those materials.
- (xv) Water Quality Monitoring Plan. Operator shall prepare a plan that describes the steps it will take to provide water quality monitoring to demonstrate no water quality degradation of surface or ground water.
- (xvi) Spill Prevention, Control, and Countermeasure Plan. Operator shall prepare a plan which describes spill prevention and mitigation practices.
- (xvii) Stormwater Pollution Prevention and Erosion Control Plan. Operator shall prepare a plan to minimize impacts to surface waters from erosion, sediment, and other sources of non-point pollution. The stormwater control plan required by COGCC Rule 1002(f) may be provided to establish compliance with this provision.
- (xviii) Interim Reclamation Plan. Operator shall prepare a plan, including a written description of the species, character and density of existing vegetation on the Well Site, a summary of the potential impacts to vegetation as a result of the proposed oil and gas operations, and proposed replanting and mitigation to address these impacts. The plan shall include any COGCC required interim reclamation procedures and shall include the means by which vegetation will be watered and maintained.
- (xix) Dust Mitigation Plan. Operator shall prepare a plan to control dust in an effort to minimize visible dust emissions from roadways or

from completion operations.

- (xx) Wetlands Protection Plan. Operator shall prepare a plan, if applicable, demonstrating the oil and gas operations shall, to the maximum extent practicable, avoid causing degradation to wetlands within the City.
- (xxi) Floodplains and Floodways. Oil and Gas Facilities are prohibited in the floodway. A Floodplain Permit is required if any Operations are within the floodplain.
- (xxii) Visual Mitigation Plan. Operator shall prepare a plan that will consider fencing materials, berming, and use of existing vegetation and natural contours to the maximum extent practicable. The visual mitigation plan shall require photographic simulations.
- (xxiii) Landscaping Plan. Operator shall prepare a plan that shall be coordinated with the City and the surface owner and, depending on access to water, may be staged to accommodate surface development. Landscaping plans should use drought tolerant species that are native and less desirable to wildlife and suitable for the climate and soil conditions of the area. An irrigation plan may be required where buffering is accomplished with vegetation.
- (xxiv) Site Security Plan. Operator shall prepare a plan for each Well Site. Each plan for a Well Site shall be reviewed by Operator on a yearly basis and will be updated, as necessary. The City may request a review and update of the plan, at its sole discretion.
- (xxv) Request for Waiver of Location Requirements in 11-3-6(p).

(e) Oil and Gas Permit Process for New Oil and Gas Operations

(1) The process for issuing an oil and gas permit shall include the following steps. Where terms of this Section conflict with other standards the Unified Development Ordinance, the provisions of this Section shall apply.

(A) Step 1: Pre-Application Conference

The applicant shall attend a pre-application conference with a representative from the City. The purpose of the meeting is to discuss the oil and gas permit submittal requirements and review process. City staff will review the list of Best Management Practices that may be required to reduce or eliminate impacts to public health, safety, welfare or the environment. The staff also has discretion to require an Alternative Location Analysis that must be completed prior to submittal of an application for an oil and gas permit.

- (i) The applicant shall prepare and submit a Preliminary Site Analysis to the City for review at the pre-application conference. The Preliminary Site Analysis shall include the following information:
 - a. All drilling and spacing units proposed by the applicant within 1,500 feet of the City's municipal boundaries;
 - b. The proposed site for the oil and gas location and all features defined below, completely contained within, or within ¼ mile of all drilling and spacing units proposed by the applicant;
 - 1. Any existing residential, platted residential, or property currently entitled for residential use, not including properties zoned Agricultural over 5 acres in size;
 - 2. Properties designated for future residential in the City's adopted Comprehensive Plan, including mixed use;
 - 3. Any facility classified as a High Occupancy Building Unit as defined by the COGCC;
 - 4. Any public or private recreation facilities;
 - 5. Outdoor venues, playgrounds, permanent sports fields, amphitheaters, or other similar place of public assembly;
 - 6. Public or private parks, not including trails;
 - 7. Senior living or assisted living facilities;
 - 8. Areas within the FEMA 100-Year Floodplain boundary;
 - 9. The centerline of all USGS perennial and intermittent streams;
 - 10. Wetlands; and
 - 11. Sensitive wildlife areas.
- (ii) If required by staff, the applicant will be required to submit an Alternative Location Analysis. The applicant shall analyze all potential sites that can reasonably access the mineral resources within the proposed drilling and spacing unit. The following information shall be provided for each site:
 - a. General narrative description of the site;
 - b. Why the particular site is proposed;

- c. A summary of the off-site impacts that may be associated with that particular site; and
 - d. Proposed truck traffic routes, pipeline routes, and access roads for each site.
- (iii) Staff will review all proposed locations in order to determine if there is a suitable location that would adequately protect public health, safety, welfare, and the environment. Each proposed location shall be evaluated against the following criteria to determine if it is a suitable location:
- a. Whether the location would comply with siting requirements in subsection 11-3-6(p);
 - b. Whether mineral extraction is technically possible and reasonable from the location;
 - c. The proposed facility will not result in a substantial or undue adverse effect on adjacent property, the character of the neighborhood, traffic conditions, parking, public improvements, either as they presently exist or as they may exist in the future;
 - d. A proposed site's conformance with the City's adopted Comprehensive Plan, and any other applicable adopted plans;
 - e. The ability to utilize pipelines and consolidate facilities with other planned drilling and spacing units proposed within the City's municipal boundaries; and
 - f. Landowner's willingness to accommodate a surface use location. Previous execution of a surface use agreement between any landowner and Operator shall not automatically deem a proposed site as the preferred alternative; and
 - g. Impact on nearby environmental resources such as water bodies.
- (iv) If a suitable location is identified, staff will recommend the Operator proceed with an oil and gas permit application. If a suitable location is not identified or is unavailable, staff will recommend that the Operator evaluate other locations or may recommend denial if an oil and gas permit application is submitted.

(B) Step 2: Application Submittal

After the pre-application conference and the submittal of an Alternative Location Analysis (if necessary) the applicant may submit an oil and gas

permit application. The application must meet the submittal requirements of subsection 11-3-6(e).

(C) Step 3: Staff Review for Completeness

Within a reasonable period of time, not to exceed 10 business days, City staff shall either certify that the application is complete and in compliance with all submittal requirements or reject it as incomplete and notify the applicant of any deficiencies. The applicant shall then correct any deficiencies in the application package, if necessary, and resubmit the required number of copies of the amended application to the City. This is not a substantive review of the application submitted.

(D) Step 4: Referral Agencies Notified

Upon receipt of a completed application, the City shall forward the application to the appropriate referral agencies. The referral information shall include the time and place of the public hearing, the nature of the hearing, the location of the subject property and the applicant's name. At minimum, the application shall be referred to Adams County, the Police Department, and the Fire District. Referral agencies shall be provided 30 days to respond with any comments. After such 30-day period, the City may proceed on the Application whether or not the City has received comments from the notified referral agencies.

(E) Step 5: Staff Review and Comments

City staff shall review the Application for compliance with this Section and all other applicable federal, state and City regulations and standards. A summary of this review, including referral comments, and proposed conditions of approval, shall be sent to the Applicant.

(F) Step 6: Applicant Response

The applicant shall address all of the City staff comments and any referral agency comments, then submit the following to the City:

- (i) Written correspondence explaining how all of the comments have been addressed; and
- (ii) Revised maps and other documents, as necessary.

(G) Step 7: Public Hearing Schedule and Notification Process

The City shall:

- (i) Publish notice of the public hearing for the oil and gas permit in a newspaper of general circulation in the City at least 15 days before the scheduled hearing date.

- (ii) Posting of notice. Notice of the hearing shall be posted by the City on each street adjoining the property involved for a period of at least 15 continuous days prior to the date of the hearing. An affidavit of posting signed by a representative of the City shall constitute prima facie evidence of fulfillment of the required posting. The expense of such posting and affidavit shall be paid by the applicant. The sign shall be professionally made or hand-stenciled with dimensions as shown; enamel or weatherproofed painted letters; white background on sturdy backing; minimum size as shown below; on two (2) posts as shown below; and six (6) feet from the edge of the street pavement.
- (iii) Mailed notices shall be sent via first class mail to all property owners within 1,000 feet of the subject property, as measured from property boundaries.
- (H) Step 8: Final Staff Review and Report to Planning Commission
 - (i) City staff will complete a final review of the resubmitted materials and then prepare a report to the Planning Commission explaining how the application is or is not consistent with the review criteria and applicable City ordinances, regulations and standards.
 - (ii) Conditions of approval. Staff may propose a list of conditions of approval, including requiring the use of Best Management Practices, to reduce or eliminate impacts to public health, safety, welfare, or the environment. The Oil and Gas Best Management Practices Exhibit will be maintained on the City's website. In proposing conditions of approval from such Best Management Practices or other sources, the staff shall consider the following factors, among other considerations:
 - a. Site-specific factors of the proposed new oil and gas location;
 - b. The extent the Best Management Practices can be used to prevent significant degradation of the health, safety, and welfare of area residents and the City of Northglenn;
 - c. The extent to which conditions of approval will promote the use of existing facilities and reduction of new surface disturbance;
 - d. The extent to which legally accessible and technologically feasible alternative sites exist for the proposed new oil and gas location; and
 - e. The extent to which the proposed oil and gas location is within land used for residential, industrial, commercial, agricultural,

or other purposes.

(I) Step 9: Review by Planning Commission

(i) Criteria for Review

At a public hearing, the Planning Commission shall review the application for the oil and gas permit for compliance with the following criteria:

- a. The requirements of subsection 11-3-6(d)(1) and this Article are met.
- b. The site plan for the well site complies with the requirements of subsection 11-3-6(d)(3)(A).
- c. The requirements of subsection 11-3-6(d)(3)(B) are met.
- d. The written narrative complies with the requirements of subsection 11-3-6(d)(3)(C).
- e. The application complies with the location restrictions provided in subsection 11-3-6(p) unless a waiver is obtained.
- f. When applicable, the application complies with the provisions for wildlife mitigation procedures provided in subsection 11-3-6(q).
- g. The proposed facility will not result in a substantial or undue adverse effect on adjacent property, the character of the neighborhood, traffic conditions, parking, public improvements, either as they presently exist or as they may exist in the future;
- h. Conformance with the City of Northglenn Comprehensive Plan or other local planning documents; and
- i. The proposed use will not significantly degrade the environment or public health, safety and welfare.

(ii) Criteria for a Location Waiver

- a. A waiver of the zoning requirement in subsection 11-3-6(p)(1) may be granted only under the following conditions:
 - 1. The location satisfies the other Criteria for Review in this Section;
 - 2. Extraordinary hardships or practical difficulties result from strict compliance with the zoning restriction; and

3. The purpose of these standards and regulations are served to a greater extent by the alternative proposal.

b. A waiver of the 1,000-foot setback in subsection 11-3-6(p)(2) may be granted if all landowners with residences or platted subdivisions agree to waive the 1,000-foot setback requirement.

(iii) Planning Commission Recommendation

The Planning Commission may recommend to approve, deny, or conditionally approve the application. Conditions of approval of an oil and gas permit may include any conditions necessary to improve or modify the site plan; any conditions necessary to ensure that any negative impacts of the proposed oil and gas operation are eliminated or mitigated; or may impose conditions related to the surface use. The Planning Commission shall cause its recommendations to be forwarded to the City Council.

(J) Step 10: Review by the City Council

(i) A public hearing on the requested oil and gas permit shall be held by the City Council at a regular or special meeting of the Council. Notice of the public hearing shall be published by posting and by publication one time in a newspaper of general circulation in the City not less than 15 days before the date of the hearing. Notice shall be given to the property owners abutting the property or within 1,000 feet of the property, and to the City's service providers, the County, special districts and referral agencies as deemed appropriate by the City. Said notice shall be given by first-class mail not less than 15 days before the date of the hearing.

(ii) The City Council shall use the Criteria for Review in this Section and, if applicable, the Criteria for a Location Waiver. To arrive at its decision, the City Council shall consider evidence presented in the application and at the public hearing which establishes compliance consistent with Section 11-3-6(e)(1)(I) above and any recommendations of the Planning Commission, if applicable. Following the conclusion of the public hearing, the City Council shall, by written resolution, render its decision to approve, deny or conditionally approve the application, or it may take the matter under advisement until an announced date certain, not to exceed 15 days from the date of the hearing, at which time it shall render its decision by written resolution. The written resolution shall be prepared by the City Attorney and shall set forth the findings of the City Council.

(iii) For the purposes of judicial review, the City Council's final action or decision on an application shall be deemed to have been made as of the date upon which the City Council executes the written

resolution, which shall constitute the final decision of the City Council.

(f) Existing Use Site Plan Order for Pre-Existing Wells

Within 21 days following enactment of this Section, an existing use site plan order shall be issued administratively by the City.

(g) Oil and Gas Permit Order

Prior to commencement of operations for which an oil and gas permit has been approved, an oil and gas permit order shall be obtained from the City. The City shall issue the oil and gas permit order within a reasonable time upon receipt of the following:

- (1) A copy of the resolution of the City Council approving an oil and gas permit;
- (2) Proof of compliance with any conditions placed in the resolution of the City Council approving an oil and gas permit;
- (3) A copy of the approved site plan;
- (4) A copy of an approved oversize or overweight vehicle or load permit issued by the City pursuant to subsection 11-3-6(m), if applicable;
- (5) Copies of any necessary state or federal permits issued for the operation if not previously submitted; and
- (6) Copies of all COGCC permits.

(h) Contact Information

The intent of this Section is to ensure that the City has the correct contact information in case of an emergency, code violation or security concern.

(1) Service of Notice

As required by the COGCC, every operator shall designate an agent who is a resident of the State upon whom all orders and notices provided in this Section may be served and shall specify in writing a mailing address for such agent. Every operator so designating such agent shall, within 10 calendar days, notify the City in writing of any change in such agent or such mailing address unless operations in the City are discontinued. The City may serve any notice provided in this Section upon the operator by mailing the same, postage prepaid, to the operator's designated agent at his or her designated address. Service shall be complete upon such mailing. The operator shall give the City written notice of any change in the designated agent or their contact information.

(2) Transfer of Operator or New Operator

As required by COGCC, the operator shall notify the City, in writing, of any sale, assignment, transfer, conveyance or exchange by said operator of a well's property and equipment within 10 calendar days after such sale, assignment, transfer, conveyance or exchange. The notice shall provide a map indicating the location of the properties and equipment involved in the transaction.

(i) Inspections

In recognition of the potential impacts associated with oil and gas facilities, all wells and accessory equipment and structures may be examined by the inspectors of the City at reasonable times to determine compliance with applicable provisions of the UDO, the International Fire Code, the International Building Code, and all other applicable standards.

(1) The City reserves the right in its discretion to make spot inspections or to inspect without notice in the event of an issue potentially involving an immediate risk to public health, safety, welfare, the environment, or wildlife, or damage to the property of another.

(2) For the purpose of implementing and enforcing the provisions of this Section, the inspector and other authorized personnel have the right to enter upon private property.

(3) The City may use the information collected on the inspections to enforce the requirements of this Section.

(4) The City may also report this information to appropriate state and federal officials, including but not limited to information regarding alleged violations of state and federal rules.

(5) Upon request, Operator shall make available to City all records required to be maintained by these regulations or to show compliance with these regulations, and the rules and regulations promulgated by the COGCC and the Colorado Department of Public Health and Environment (CDPHE), including permits, Air Pollutant Emission Notices (APENs) and other documents required to be maintained by the COGCC, CDPHE and these regulations.

(j) Building Permits

In addition to any other requirements of this Section, building permits must be obtained for all aboveground structures to which the applicable City Building Codes apply.

(k) Use Tax

All operators must conform to applicable provisions of this Code relating to

taxation, if any.

(l) Access Roads

All private roads used to provide access to the tank batteries or the well site shall be improved and maintained according to the following standards so long as such standards are consistent with the surface owner's requests or the terms of a private Surface Use Agreement with the surface owner, and does not damage adjacent properties:

Access roads to facilities and Well Sites shall conform to the following minimum standards:

(1) All access roads must be in conformance with the City's standards and specifications. A graded gravel roadway having a prepared subgrade and an aggregate base course surface a minimum of six inches thick, compacted to a minimum density of 95% of the maximum density as determined in accordance with generally accepted engineering sampling and testing procedures. The aggregate material, at a minimum, shall meet the requirements for Class 3, aggregate base course as specified for aggregate base course materials in the Colorado Department of Transportation's Standard Specifications for Road and Bridge Construction, latest edition. A geotechnical report and pavement design will be submitted to the City for approval.

(2) Access road shall be graded so as to provide drainage from the roadway surface and constructed to allow for cross-drainage of waterways (such as roadside swales, gulches, rivers, creeks and the like) by means of an adequate culvert pipe. Adequacy of the pipe is subject to approval of the City Engineer.

(3) Access road shall be maintained so as to provide a passable roadway free of ruts and dust at all times.

(4) The access road must be improved as a hard surface (concrete or asphalt) for the first 100 feet from the public road, unless public road is not already a hard surface, in which case, Operator shall meet the current standards of the public road.

(5) If an access road intersects with a pedestrian trail or walk, the Operator shall pave the access road as a hard surface (concrete or asphalt) a distance of 100 feet either side of the trail or walk, unless the trail or walk is not already a hard surface, in which case, Operator shall meet the current standards of the trail or walk. If necessary, Operator shall replace the trail or walk to address the weight load requirements of the vehicles accessing the well and production facilities.

(6) Temporary access roads associated with the Operations will be reclaimed and reseeded to the original state within 60 days after discontinued use of the temporary access roads. An exception to temporary access road construction standards and specifications may be made upon agreement of the Parties where

circumstances warrant a departure given future development needs.

(m) Oversize or Overweight Vehicle or Load Permit

An oversize or overweight vehicle or load permit shall be required for all oversize or overweight vehicles or loads as defined in Sections 42-4-501 through 42-4-511, C.R.S., which use City streets. Said permit, if required, shall be obtained from the City prior to such use. The applicant shall comply with all City and state regulations regarding weight limitations on streets within the City, and the applicant shall minimize oversize or overweight vehicle traffic on streets within the City.

(n) Fencing Requirements

At the time of initial installation, or upon the issuance of an existing use site plan order, fencing is required for all pumps, wellheads and production facilities that are within an approved subdivision or within 1,000 feet of an existing public road or existing structure or if a well site falls within a high-density area as defined by the COGCC. All pumps, wellheads and production facilities shall be adequately fenced to restrict access by unauthorized persons. For security purposes, all such facilities and equipment used in the operation of a completed well shall be surrounded by a fence six feet in height, and so long as the material is noncombustible and allows for adequate ventilation, the gates shall be locked. The following specific standards shall apply to all oil and gas wells and production facilities. Fence enclosures shall be constructed of materials suited for the given location and operations that are technologically, and operationally feasible, and compatible with the surrounding land uses, but shall not include solid masonry walls. All fences and walls shall be equipped with at least one gate. The gate shall meet the following specifications:

(1) The gates shall be of construction that meets the applicable specifications or of other approved material that, for safety reasons, shall be at least as secure as a chain-link fence;

(2) The gates shall be provided with a combination catch and locking attachment device for a padlock and shall be kept locked except when being used for access to the site; and

(3) The operator must provide the fire protection district with a "Knox Padlock" or "Knox Box with a key" to access the well site, to be used only in case of an emergency.

(o) Noise Requirements

(1) The Operator must use quiet completions technology for any well located within 1,320 feet of a Residential Building Unit or within 1,500 feet of a High Occupancy Structure unless Operator obtains waivers from all affected property owners within that distance.

(2) The Operator shall comply with all provisions of COGCC Rule 802 on Noise Abatement with respect to the Well Site. However, the maximum permissible noise levels to be applied under Rule 802 shall be, other than during pad construction at the Well Sites, the greater of:

(A) the levels set forth for the land use type of "Residential/Agricultural/Rural" under Rule 802 if measurements are taken at 1,000 feet from the sound walls at the Well Site; and

(B) 4 dB(A) higher than baseline ambient sound measured at 1,000 feet from the sound walls at the Well Site. During pad construction at the Well Sites, the Operator agrees that noise levels shall not exceed those produced by the construction of a typical residential or commercial development.

(3) All measurements considered for compliance with this Section shall be taken by a third-party contractor using industry standard equipment and practices.

(p) Location Restrictions

(1) Well Sites may only be located within the non-residential zoning districts of Industrial (IN), Public Facilities (PF,) and Agricultural (AG) without obtaining a Waiver.

(2) Well Sites proposed within City limits shall be at least 1,000 feet from the property line of any existing or platted residences, schools, Future School Facilities, or state licensed daycares unless a Waiver is obtained.

(3) Violation of any federal, state or local laws or regulations shall be a violation of this Section.

(4) The well and tank battery shall comply with all applicable federal, state and local laws and regulations when located in a floodway or a 100-year floodplain area.

(5) All equipment at production sites located within a 100-year floodplain shall be anchored as necessary to prevent flotation, lateral movement or collapse or shall be surrounded by a berm with a top elevation at least one foot above the level of a 100-year flood.

(6) Any activity or equipment at any well site within a 100-year floodplain shall comply with applicable City Floodplain Regulations and the Federal Emergency Management Act and shall not endanger the eligibility of residents of the City to obtain federal flood insurance.

(q) Wildlife Impact Mitigation

(1) Wildlife

When a well site or production site is located within or adjacent to a wildlife or natural area, the applicant shall consult with the Colorado Division of Wildlife to obtain recommendations for appropriate site specific and cumulative impact mitigation procedures as required by the COGCC. The operator shall implement such mitigation procedures as are recommended by the Colorado Division of Wildlife after consultation with the City. The operator shall file a mitigation plan with the City.

(2) Endangered Species

The operator shall not engage in activities which, in the opinion of the Colorado Division of Wildlife, threaten endangered species.

(r) Violation and Enforcement

(1) Unlawful to Construct or Install Unapproved Oil and Gas Facilities

(A) Except as otherwise provided in this Section, it is unlawful to construct, install or cause to be constructed or installed any oil and gas well or production facility within the City unless approval of an oil and gas permit has been granted by the City Council. The unlawful drilling or redrilling of any well or the production therefrom is a violation of this Section.

(B) It is unlawful to fail to obtain an oil and gas permit or existing use site plan order where one is required pursuant to this Section.

(C) It is unlawful to provide false, misleading, deceptive or inaccurate information and/or documentation in an application for an oil and gas permit or existing use site plan order. Except as otherwise provided in this Section, it is unlawful for the applicant to provide information and/or documentation upon which the approval of an oil and gas permit was based, which the applicant, its agents, servants or employees knew or reasonably should have known was materially false, misleading, deceptive or inaccurate.

(2) Penalty

Any person convicted of a violation of any of the acts enumerated in Subsections (a), (b) and (c) above, or who commits any act or omission in violation of any provision of this Section, or of the conditions and requirements of the oil and gas permit, may be punished as provided in Section 1-1-10(a)(2) of this Code. Each day of such unlawful operation constitutes a separate violation.

(3) Civil Action

In case any well, production facility, building or structure is or is proposed to be erected, constructed, reconstructed, maintained, altered or used, or any land is, or is proposed to be, used in violation of any provision of this Section or the

conditions and requirements of the oil and gas permit or any existing use site plan order, the City Attorney, in addition to the other remedies provided by law, ordinance or resolution, may institute an injunction, mandamus, abatement or other appropriate action or proceeding to prevent, enjoin, abate or remove such unlawful erection, construction, reconstruction, maintenance, alteration or use.

(4) Recovery of Fees

Should the City prevail in any action for legal or equitable relief for a violation of the provisions of this Section, in addition to any other penalties or remedies which may be available, the City shall be entitled to recover any damages, costs of action, expert witness fees, and reasonable attorneys' fees incurred.

Section 2. Section 11-7-3 of the Northglenn Municipal Code is hereby repealed and reenacted to read as follows:

11-7-3 Definitions related to Oil and Gas Regulations

(1) All terms used in Section 11-3-6 that are defined in the Oil and Gas Conservation Act of the State of Colorado (“Act”), or in Oil and Gas Conservation Commission (“COGCC”) regulations and are not otherwise defined in the regulations in this UDO, are defined as provided in the Act or in such regulations as of the effective date of this UDO.

(2) All other words used in Section 11-3-6 are given their usual, customary and accepted meaning, and all words of a technical nature, or peculiar to the oil and gas industry, shall be given that meaning which is generally accepted in said oil and gas industry. When not clearly otherwise indicated by the context, the following words and phrases used in Section 11-3-6 have the meaning as described below.

Act

The Oil and Gas Conservation Act of the State of Colorado.

Alternative Location Analysis

A review of all locations that are legally accessible (based on current state and local government setback regulations) and are technically feasible to develop a proposed drilling and spacing unit. The review must also evaluate the compatibility of each location with adjacent land uses and whether the location would provide greater protection for public health, safety, welfare and the environment.

Applicant

The person making an application for an oil and gas permit on behalf of the Operator or Owner of a well.

Approved Plan

The totality of the material contained in the application for an oil and gas permit approved by the City Council following a public hearing or, in the case of an existing use site plan order, the totality of the materials contained in the application for an existing use site plan

order approved administratively by the City.

Building Unit

A building or structure intended for human occupancy. A dwelling unit is equal to one building unit; every guest room in a hotel/motel is equal to one building unit; and every 5,000 square feet of building floor area in commercial facilities, and every 15,000 square feet of building floor area in warehouses, or other similar storage facilities, is equal to one building unit.

Commission or COGCC

The Oil and Gas Conservation Commission of the State of Colorado.

Completion

An oil well shall be considered complete when the first new oil is produced through wellhead equipment into lease tanks from the ultimate producing interval after the production string has been run. A gas well shall be considered completed when the well is capable of producing gas through wellhead equipment from the ultimate producing zone after the production string has been run. A dry hole shall be considered completed when all provisions of plugging are complied with as set out in the rules of the COGCC. Any well not previously defined as an oil or gas well shall be considered completed 90 days after reaching total depth. If approved by the Director, a well that requires extensive testing shall be considered completed when the drilling rig is released or six months after reaching total depth, whichever is later.

Day

A period of 24 consecutive hours.

Director

The Director of the Oil and Gas Conservation Commission of the State of Colorado.

Drill Pad Site

The areas which are directly disturbed during the drilling and subsequent operation of, or affected by, production facilities directly associated with one or more oil well, gas well or injection well(s).

Flow Lines

Those segments of pipe from the wellhead downstream through the production facilities ending at the gas metering equipment or the oil loading point.

Future School Facility

A school facility that is not yet built, but that the school or school governing body plans to build and use for students and staff within ten years of the date the school or school governing body receives a pre-application notice pursuant to Rule 305.a.(4). In order to be considered a future school facility, the following requirements must be satisfied:

- For public, non-chartered schools, the school governing body must affirm the nature, timing, and location of the future school facility in writing; or
- For charter schools, the school must have been approved by the appropriate school

district or the State Charter School Institute, § 22-30.5-505, C.R.S., at the time it receives a pre-application notice pursuant to Rule 305.a.(4), and the school governing body must affirm the nature, timing, and location of the future school facility in writing; or

- For private schools, the school governing body must be registered with the Office of the Colorado Secretary of State at the time it receives a pre-application notice pursuant to Rule 305.a.(4), and must provide documentation proving its registration with the Office of the Colorado Secretary of State, its tax exempt status, and its submitted plans to the relevant local government building and planning office.

Gas Well

A producing well with natural gas as the primary commercial product. Most gas wells frequently produce some condensate (natural gas liquids such as propane and butane) and occasionally produce some water.

Gathering Line

A pipeline that transports gas from a current production facility to a transmission line or main.

High-Density Area Rules for Building Units

A high-density area shall be determined at the time the well is permitted on a well-by-well basis by calculating the number of occupied building units within the seventy-two-acre area defined by a 1,000 foot radius from the wellhead or production facility. If 36 or more actual or platted building units (as defined in the COGCC 100 Series rules) are within the 1,000 foot radius or 18 or more building units are within any semicircle of the 1,000 foot radius (i.e., an average density of one building unit per two acres), it shall be deemed a high-density area. If platted building units are used to determine the density, then 50 percent of said platted units shall have building units under construction or constructed.

Injection Well

Any hole drilled into the earth into which fluids are injected for the purposes of secondary recovery, storage or disposal pursuant to authorizations granted by the Commission.

Mineral Owner

Any person having title or right of ownership in subsurface oil, gas, or other hydrocarbon and/or, where context dictates, any leasehold interest therein.

Multiple Oil and Gas Operations Permit

A permit issued by the City if more than one well or production facility is being applied for and approved at the same time by the same applicant.

Multiwell Site

A common well pad from which multiple wells may be drilled to various bottomhole locations.

Oil and Gas Operations

Exploration for oil and gas, including the conduct of seismic operations and the drilling of

test bores; the siting, drilling, deepening, recompletion, reworking or abandonment of an oil and gas well, underground injection well or gas storage well; production operations related to any such well, including the installation of flowlines and gathering systems; the generation, transportation, storage, treatment or disposal of exploration and production wastes; and any construction, site preparation or reclamation activities associated with such operations.

Operating Plan

A general description of a well site or a production site identifying the purpose, use, typical staffing, seasonal or periodic considerations, routine hours of operation, source of services/infrastructure and any other information related to the regular functioning of the facility. Operating Plan includes a Schedule of Operations – estimated project schedules that may vary for all phases, including “construction phase” (including pipeline construction), “drilling phase,” “completion phase” (broken down into activity-based components including flowback), and “production phase” (including estimated timelines for interim reclamation and landscaping).

Operator

The person designated by the owner or lessee of the mineral rights as the operator of oil and gas operations or a production facility and so identified in the Colorado Oil and Gas Conservation Commission applications.

Person

Both the singular and plural and means a natural person, a corporation, association, guardian, partnership, receiver, trustee, administrator, executor and/or fiduciary, any other legal entity or representative of any kind.

Production Facilities

All storage, separation, treating, dehydration, artificial lift, power supply, compression, pumping, metering, monitoring, flow lines and other equipment directly associated with oil wells, gas wells or injection wells.

Production Site

The area containing production facilities, exclusive of gathering lines.

Reentering

Accessing an existing well bore for either the original or amended purpose, provided that such well has not been abandoned.

Separator

A cylindrical or spherical vessel used to separate oil, gas and water from the total fluid stream produced by a well. Separators can be either horizontal or vertical.

Surface Owner

Any person having the title or right of ownership in the surface estate of real property and/or, where context indicates, any leasehold interest therein.

Surface Use Agreement

Any agreement entered into between a mineral owner and a surface owner in order to conduct oil and gas operations.

Well

An oil well, gas well or injection well.

Well Site

The areas which are directly disturbed during the drilling and subsequent operation of, or affected by production facilities directly associated with, any oil well, gas well or injection well.

Wellhead

The mouth of the well at which oil and gas is produced, and any appurtenant above-ground facilities.

Wildlife and Natural Area Hall

Include, but not be limited to, floodplains and floodways; natural drainage and waterways; significant native trees and vegetation; wildlife travel corridors; special habitat features such as raptor nests, key nesting, breeding or feeding areas for birds; fox and coyote dens; prairie dog colonies more than 25 acres in size; remnant native prairie habitat; plains cottonwood galleries; natural or man-made lakes and ponds and any wetlands greater than one-quarter acre in size.

INTRODUCED, READ AND ORDERED POSTED this ____ day of _____,
2019.

ANTONIO B. ESQUIBEL
Mayor

ATTEST:

JOHANNA SMALL, CMC
City Clerk

PASSED ON SECOND AND FINAL READING this ____ day of _____,
2019.

ANTONIO B. ESQUIBEL
Mayor

ATTEST:

JOHANNA SMALL, CMC
City Clerk

APPROVED AS TO FORM:

COREY Y. HOFFMANN
City Attorney