MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU") is made and entered into this ____ day of [INSERT MONTH] 20___, by and between the City of Brighton, a Colorado home-rule city ("City") with an address of 500 S. 4th Ave., Brighton, CO 80601, and [INSERT OPERATOR] ("Operator"), with an address of [INSERT OPERATOR ADDRESS]. The Operator and the City may be referred to individually as a "Party" or collectively as the "Parties."

BACKGROUND

- A. Operator is the owner or lessee of oil and gas leasehold and/or mineral interests within the City, and, as of the time of the execution of this MOU, has the right and intent to further develop its oil and gas leasehold and/or mineral interests within said portion of the City.
- B. The intent of this MOU is to provide the conditions under which Operator will develop and operate future oil and gas facilities or newly expanded facilities in the City, in order to foster the efficient and economic production of oil and gas resources, to protect human health, safety and welfare and to protect the environment and wildlife resources, while at the same time providing for a predictable and expeditious administrative process for obtaining City land use approvals and permits for oil and gas facilities.
- C. The further intent of this MOU is to allow Operator an expedited procedure for obtaining City permits, without the need for any formal hearing on such permits, from the City for Operator's oil and gas operations and/or activities.

NOW, THEREFORE, the Parties agree as follows:

- 1. **Intent to Supplement COGCC Rules and Regulations, Not Replace.** The provisions of this MOU are intended to supplement and add to the COGCC's rules and regulations and not to replace such rules and regulations. To the extent that any of the provisions of this MOU are in conflict with the Act or COGCC rules and regulations, the stricter standards shall govern.
- 2. **City Land Use Approvals.** Operator's Covenants. The Operator understands and agrees that prior to the development or operation of any oil and gas facility in the City, Operator must obtain any required approval from the City pursuant to any validly adopted provisions in the City's Land Use and Development Code, Chapter 17 of the Brighton Municipal Code ("BMC"), which includes this MOU. The BMC specifically allows for expedited administrative approval of new oil and gas locations pursuant to an MOU, but does not waive any other provisions in the Code. (BMC Sections 17-64-310 to 17-64-420 as may be amended from time to time.)
- 3. **Surface Owner Involvement**. It is expected that the operator is representing the interests of the Surface Owner in the negotiations of the MOU. Operator shall provide City with copies of all Surface Use Agreements and other contracts governing oil and gas operations on property proposed to be covered by this MOU. City may request a meeting with the Surface Owner to discuss the MOU and its applicability to Surface Owner's property and shall provide notice to the Operator regarding such meeting. If the property is the subject of the Surface Use Agreement, Operator has the right, but not the obligation, to attend such meeting. If the property is not subject to a Surface Use Agreement or other specific agreement governing the siting of oil and gas locations, then the Operator shall be required to attend such meeting.

- 4. **Definitions.** All terms used herein that are defined in the Brighton Municipal Code Section 17-64-30 or regulations promulgated by the Colorado Oil and Gas Conservation Commission and/or the Colorado Department of Public Health and Environment shall be defined as provided in the Act or in such regulations. All other words used herein shall be 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 the oil and gas industry.
- 5. **Setbacks for New Wells.** Operator agrees to use its best efforts to locate the wellhead or Production Facility outside of the buffer zone at least 1000' from City's public water supply wells or the closest corner of the closest Building Unit (unless allowed by the Building Unit owner) and 1,500' from any High Occupancy Building Unit. In the event that the parties determine that locating a well or oil and gas location outside these distances is not reasonably practicable, the operator shall maximize equipment and wellhead setbacks from Building Units, High Occupancy Building Units, or public water supply wells beyond the setbacks required by the COGCC to the greatest extent reasonably practicable.
 - 6. **Pits.** Operator's Pit Practices within the City.
 - a. Operator shall use closed-loop or modified closed loop systems, as defined below, for drilling and completions; however, emergency, or freshwater pits may be allowed if approved by COGCC in accordance with COGCC rules and applicable orders.
 - b. Modified closed-loop systems include oil and gas wells where air or fresh water is used to drill through the surface casing interval, defined as fifty (50) feet below the depth of the deepest aquifer, and a closed loop system is used for the remainder of the drilling and/or completion or recompletion procedures.
- 7. **Regular Meetings to Monitor and Discuss MOU Issues.** The City and Operator agree to meet as necessary and reasonable, to monitor and discuss any pertinent issues associated with oil and gas facilities within the City as determined by the City.
- 8. **Water Supply and Quality.** In an effort to reduce truck traffic, where reasonably and commercially practicable, the Operator will use its best efforts to identify a water source lawfully available for industrial use, including oil and gas development, close to the facility location, to be utilized by Operator and its suppliers. Operator will comply with the Colorado Department of Public Health and Environment requirements concerning water quality. Where reasonably practicable, temporary surface water lines are encouraged and will be utilized. Operator may be permitted to utilize City Road Right-of-Way, and City drainage culverts, where practical, for the laying and operation of temporary water lines on the surface. If necessary, Operator will bury temporary water lines at existing driveway and gravel road crossings, or utilize existing culverts, if available.
- 9. **Water Quality Monitoring Plan.** In all areas of the City, the operator shall comply with COGCC Rule 609 and the steps identified in this section that go beyond that rule. In summary, this requires pre-and post-drilling testing. The rules require oil and gas operators to sample all "Available Water Sources" (if owner has given consent for sampling and testing and has consented to having the sample data obtained made available to the public), with a cap of four (4) water sources, within one-half (1/2) mile radius of a proposed well, multi-well site, or dedicated injection well. "Water Sources" includes registered water wells, permitted or adjudicated springs, and certain monitoring wells. Monitoring, sampling, and testing of well water required herein shall be at the sole expense of the operator.

- a. Where multiple defined aquifers are present, the sampling locations should attempt to sample from the alluvial aquifer when possible.
- b. Other considerations deemed necessary by the City Director of Utilities.
- c. Copies of all water test results shall be provided to the City and landowner within thirty (30) days of collecting the samples.
- d. If the methane concentration increases by more than 5.0 mg/l between sampling periods, or increases to more than 10 mg/l, the operator shall notify the City immediately.
- e. If there are no available water sources located within a ½ mile radius of a new oil and gas facility, the Operator, prior to construction, will test the nearest downgradient available water source that is within a one-mile radius of the oil and gas facility.
- 10. **Comprehensive Planning.** Within 90 days of the signing of this agreement, the operators shall provide the following information, with a copy to the COGCC Local Government Liaison ("LGL"):
 - a. Based on the current business plan of the operator, a good faith estimate of the number of wells (not including non-operated wells) that such operator intends to drill in the next five (5) years within the City limits or within ¼ mile of the City limits of Brighton, corresponding to the operator's internal analysis of reserves classified as "proved undeveloped" for SEC reporting purposes.
 - b. A map showing the location of the operator's existing well sites and related production facilities; sites for which operator has, or has made application for, COGCC permits; and, sites identified for development on the operator's current drilling schedule for which it has not yet made application for COGCC permits.
 - c. The plan provided to the LGD is acknowledged to be subject to change at the operator's sole discretion, and shall be updated by the operator if materially altered.
- 11. **Noise mitigation measures.** A Noise Mitigation Plan is required pursuant to the BMC Sections 17-64-120 and 17-64-140. Where the well and well site are in an Urban Mitigation Area or within 1,000 feet of a Useable Open Space, an operator must make best efforts to reduce noise to commercial limits as defined by the COGCC rules. In determining noise mitigation proposed in the mitigation plan, specific site characteristics shall be considered, including but not limited to the following:
 - a. Nature and proximity of adjacent development, location and type;
 - b. Prevailing weather patterns, including wind directions;
 - c. Vegetative cover on or adjacent to the site; or
 - d. Topography.

Within an Urban Mitigation Area, or within 1,000 feet of a Useable Open Space, a third-party noise mitigation study shall be conducted. Based upon the results of the mitigation study and the specific site characteristics, nature of the proposed activity, its proximity to surrounding development, and type and intensity of the noise emitted, additional noise abatement measures may be required. The level of required mitigation may increase with the proximity of the well and well site to areas of particular noise sensitivity or the level of noise emitted by the well and well site. The following noise mitigations shall be considered in the Noise Mitigation Plan:

- e. Noise management plan identifying hours of maximum noise emissions, type, frequency, and level of noise to be emitted, and proposed mitigation measures; or
- f. Acoustically insulated housing or cover enclosing the motor or engine;
- g. Use of electric-powered engines for motors, compressors, and drilling and production equipment and for pumping systems in order to mitigate noise. If electricity from the grid is not available, the operator shall use propane or natural gas to power pumps and motors, if reasonably practicable.
- h. Any abatement measures required by the COGCC for high-density areas, if applicable.
- 12. **Floodplain**. Any disturbance within a 100-year floodplain will be allowed only if the Operator has obtained a Floodplain Development Permit from the City and has complied with all the City's legally adopted floodplain and engineering regulations. Pits, except for emergency pits, will not be allowed in 100-year floodplain, as defined in the City's Stormwater Management Manual. A "100-year floodplain" shall be, for purposes of this Section, a "Special Flood Hazard Area" as identified and mapped by the Federal Emergency Management Agency's National Flood Insurance Program.
- 13. **Visual Impacts and Aesthetics.** A Visual Mitigation Plan is required pursuant to the BMC Section 17-64-120 and 17-64-140. To the maximum extent practicable, Operator shall comply with the following aesthetic provisions:
 - a. Oil and gas facilities shall be located away from prominent natural features such as distinctive rock and land forms, vegetative patterns, ditch crossings, City-approved open space areas, and other approved landmarks;
 - b. Structures shall be of minimal size to satisfy present and future functional requirements;
 - c. Operator shall consult with the City Director of Parks and Recreation when clearing trees and vegetation for construction of oil and gas facilities and feathering and thinning;
 - d. Applicant shall locate facilities at the base of slopes to provide a background of topography or natural cover;
 - e. Replace earth adjacent to water crossings at slopes less than the normal angle of repose for the soil type of the site; and
 - f. Align access roads to follow existing grades and minimize cuts and fills.
 - g. In Urban Mitigation Areas and Useable Open Spaces, one or more of the following landscaping practices may be required by the City where reasonably practicable, on a site-specific basis:
 - i. Landscaping requirements found in Sec. 17-48-170;
 - ii. Establishment and proper maintenance of ground covers, shrubs, trees;
 - iii. Shaping cuts and fills to appear as natural forms;
 - iv. Cutting rock areas to create irregular forms;
 - v. Designing the facility to utilize natural screens; or
 - vi. Construction of fences for use with or instead of landscaping.
- 14. **State Oil and Gas Permit Approvals.** The Operator agrees to include the contents of Attachment A of this MOU in all Forms 2 and 2A that it submits to the COGCC and consents to the inclusion of the contents of Attachment A of this MOU as conditions of the issuance of any permit or other form of approval by the COGCC with regard to the location, development or

operation of an oil and gas facility in the City, unless, and to the extent, waived or modified in writing by the City Manager, or waived or modified on the record at a public hearing before the City Council; further, Operator understands and agrees that the provisions of this MOU shall remain conditions of permit or other form of approval regardless of the subsequent sale or other transfer of any oil and gas facilities, or interest therein, by Operator. The City shall utilize the LGD process described in the COGCC 's Rules and may request that the COGCC impose site specific conditions as part of the state permit process that are in addition to the Operator's practices or procedures agreed upon herein and the Operator may respond to same as set forth in the COGCC's Rules. If the state permit has already been approved and the City and Operator are in agreement as to any subsequent, additional conditions to be placed on the state permit, the Operator agrees to apply to the COGCC to modify the state permit by allowing such subsequent, additional conditions to be placed on the state permit.

- 15. **Applicability.** This MOU shall only apply to Oil and Gas Facilities for which Operator has applied for permits as of the date of this MOU and to any facilities with respect to which Operator receives COGCC approval after the date of this MOU. This MOU shall not be construed to apply to Oil and Gas Facilities for which another operator applies for a permit even though the Operator may have an interest but is not the Operator, and does not apply to wells drilled by the Operator prior to the date of this MOU. Additional facilities may be exempted from some or all of the terms of this MOU, but only if approved in writing by the City Manager or approved on the record at a public hearing before the City Council.
- 16. **Term.** This MOU is effective upon the execution by both Parties and shall remain in effect so long as Operator, its subsidiaries, successors or assigns, are engaged in the development or operation of oil and gas facilities within the City; provided, however, this MOU may be renegotiated by agreement of both parties, or terminated by either Party with thirty (30) days prior written notice to the other Party. If there is a new development in state law, rules or judicial decisions that substantially affect any provision of this MOU, the Parties agree to negotiate in an attempt to update this MOU in light of same by a written amendment executed by both Parties. In the event this MOU expires or is otherwise terminated, the substantive requirements stated in this MOU, including all of Attachment A, shall survive and remain enforceable against the owner or operator of any oil and gas facilities that were permitted or otherwise approved during the term of this MOU, except to the extent waived or modified pursuant to the provisions of this MOU. Additionally, in the event this MOU expires or is otherwise terminated, no re-permitting of the wells shall be required solely as a result of the termination of this MOU.
- 17. **Obligation of Funds.** Nothing in this MOU shall commit either Party to obligate or transfer any funds to the other.
- 18. **Force Majeure.** Neither Party will be liable for any delay or failure in performing under this MOU in the event and to the extent that the delay or failure arises out of causes beyond a Party's reasonable control, including, without limitation, war, civil commotion, act of God, strike or other stoppage (whether partial or total) of labor, or any law, decree, regulation or order of any government or governmental body (including any court or tribunal).
- 19. **Authority to Execute MOU.** Each Party represents that it has the full right and authority to enter into this MOU.
 - 20. **Governing Law / Venue.** This MOU shall be governed and construed in accordance

with the laws of the State of Colorado without reference to its conflict of law provisions. For any matter requiring judicial resolution, the Parties agree to the exclusive jurisdiction of the State District Court of the County of Adams, Colorado.

- 21. **Entire Agreement.** Except as expressly set forth herein, this MOU embodies the complete agreement between the Parties hereto with respect to the subject matter hereof and supersedes and preempts any prior understandings, agreements, or representations by or between the Parties, written or oral, which may have related to the subject matter hereof. No amendment to this MOU shall be effective unless in writing, signed by the Parties.
- 22. **Third Party Beneficiaries**. Except as specifically stated herein, this MOU is not intended to, and does not, create any right, benefit, responsibility or obligation that may be enforced by any non-party.
- 23. **Notices.** All notices and other correspondence related to this MOU shall be in writing and shall be delivered by: (i) certified mail with return receipt, (ii) hand delivery with signature or delivery receipt provided by a third party courier service (such as FedEx, UPS, etc.), (iii) fax transmission if verification of receipt is obtained, or (iv) email with return receipt, to the designated representative of the Party as indicated below. A Party may change its designated representative for notice purposes at any time by written notice to the other Party. The initial representatives of the Parties are as follows:

City: City Manager's Office City Attorney Margaret Brubaker

500 S. 4th Ave. 21 North 1st Avenue, Suite 290

Brighton, CO 80601 Brighton, CO 80601

Operator: [INSERT OPERATOR]

[INSERT OPERATOR ADDRESS]

- 24. **Subsidiaries/Successors**. The provisions of this MOU shall apply to all subsidiaries and successors-in-interest of the Operator with respect to any oil and gas facilities permitted or otherwise approved during the term of this MOU. The Operator shall require any successor and assign, by written agreement, to adhere to all terms and conditions of this Agreement, and to expressly assume the defense and indemnity obligations to the City as set forth herein in a document acceptable in form to the City. Such assignment shall not relieve the assignee of any obligations that accrue during the period of operation of the assignee or otherwise arising out of the actions or inactions of the assignee during its period of operation.
- 25. **Default.** If a Party defaults in the performance of an obligation under this MOU, the defaulting Party shall have ten (10) days to cure the default after receipt of written notice of such default from the non-defaulting Party, provided the defaulting Party shall be entitled to a longer cure period if the default cannot reasonably be cured within thirty (30) days and the defaulting Party commences the cure within such ten (10) day period and diligently pursues its completion; however, in the event that the default involves an issue that could have an immediate impact on public health, safety or welfare, or cause damage to property of another, the defaulting party shall immediately begin action to cure the default. Each alleged default shall be treated separately under this paragraph and notice of an alleged default shall not affect the processing of permit applications while the notice

is being evaluated, contested or corrected. In the event of a default, the Parties shall be entitled to seek specific performance as well as any other available remedies. If the MOU is the subject of legal action, the Party who substantially prevails shall be entitled to the recovery of its attorney fees and costs.

- 26. **Jurisdiction: Waiver of Rights**. The parties acknowledge, understand and agree that this agreement shall not be used as evidence that either party has waived any rights to assert its claims concerning the validity or extent of the City's land use jurisdiction. Nothing in this agreement shall be construed as an admission regarding the existence of proper jurisdictional authority or waiver by either party of any legal right or obligation, nor shall anything be construed as a bar to either party to seek any legal remedy available to it. The Operator agrees, however, that it will not exert jurisdictional or preemption arguments with respect to the specific performance obligations contained in this MOU.
- 27. **Defense and Indemnity.** Operator agrees to defend and indemnify the City, its employees, officers, boards, agents and councilmembers (collectively "City Entities") from and against all claims and liability against the City Entities arising out of or related to the operations of the Operator, its agents, subcontractors, representatives or others for whom the Operator is responsible at the Oil and Gas Locations and any action or inaction of the Operator, its agents, subcontractors, representatives, or any other person for whom the Operator is responsible at or in connection with the Oil and Gas locations, including but not limited to claims for bodily injury, death, property or other damage, remediation or other costs, or claims under any local, state or federal law. As used in this paragraph, the term "claim" means a claim filed in any judicial forum, any administrative proceeding and any administrative order. The Operator shall investigate, handle, respond to, satisfy the claim and bear all other costs and expenses related thereto, including court costs and attorneys' fees. This defense and indemnity does not apply to a claim or liability that arises from the sole active negligence of the City Entities. The obligations of this paragraph shall survive the termination of this Agreement.
- 28. **Recording.** This Agreement may be recorded by the City with the Clerk and Recorder of the County of Adams and the County of Weld.

IN WITNESS WHEREOF, the Parties have caused this MOU to be executed by a duly authorized representative on the day and year indicated below.

[INSERT OPERATOR]

) ss.

)

State of [INSERT STATE]

	nowledged before me this day of	, 20
by [INSERT SIGNOR], as [INSERT SIGN	NOR'S TITLE] of [INSERT OPERATOR].	
My commission expires:		
Witness my hand and official seal.		
	N	
	Notary	
City of Brighton	ATTEST:	
D		
By: Manuel Esquibel, City Manager	Natalie Hoel, City Clerk	
County of Brighton)		
) ss.		
State of Colorado)		
	nowledged before me this day of	, 20
by Manuel Esquibel, City Manager of the C	city of Brighton.	
My commission expires: Witness my hand and official seal.		
witness my nand and official seaf.		
	Notary	
The foregoing instrument was ackr by Natalie Hoel, City Clerk.	nowledged before me this day of	, 20
My commission expires:		
Witness my hand and official seal.		
	Notary	

NOTE: OPERATORS AND THE CITY WILL NEED TO FINALIZE THIS ATTACHMENT ONCE THE LANGUAGE FOR THE MOU AND OIL AND GAS REGULATION ARE COMPLETE ATTACHMENT A

The following conditions will apply to all of Operator's newly permitted wells and facilities within the City of Brighton ("City"), as of the effective date of the fully executed MOU between the City and Operator. Attachment A shall be incorporated into the COGCC permit approval process through the LGD process as described in the COGCC's Rules, or by Sundry notice (COGCC Form 4) if there is agreement between Operator and the City.

- 1. **Pits.** Operator's Pit Practices within the City.
 - a. Operator shall use closed-loop or modified closed loop systems, as defined below, for drilling and completions; however, emergency or freshwater pits may be allowed if approved by the Colorado Oil and Gas Conservation Commission ("COGCC") in accordance with COGCC's Rules and applicable orders.
 - b. Modified closed-loop systems include oil and gas wells where air or fresh water is used to drill through the surface casing interval, defined as fifty (50) feet below the depth of the deepest aquifer, and a closed loop system is used for the remainder of the drilling and/or completion or recompletion procedures.
- 2. **Containment berms.** The operator shall utilize steel-rim berms around tanks and separators at well sites with sufficient capacity to contain 1.5 times the volume of the largest tank enclosed by the berm plus sufficient freeboard to prevent overflow. All berms and containment devices shall be inspected by the Operator at regular intervals 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. For purposes of this paragraph, "regular intervals" shall mean at least as frequently as every pumper/lease operator site visit unless remote sensing equipment is utilized.
 - a. Secondary containment for 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.
 - b. For locations within five hundred (500) feet and upgradient of a surface water body, tertiary containment, such as an earthen berm, is required around production facilities. Such tertiary containment berm shall have a capacity of two (2) times the largest individual tank.
- 3. **Water Supply and Quality.** To reduce truck traffic, where reasonably practicable, temporary surface water lines are encouraged and will be utilized. If necessary, Operator will bury temporary water lines at existing driveway and gravel road crossings, or utilize existing culverts, if available.
- 4. **Noise.** Operator shall provide a noise mitigation plan to the City and will list conditions from the noise mitigation plan as conditions for COGCC permits.
 - 5. **Setbacks for New Wells.** Operator agrees to use its best efforts to locate the wellhead

or Production Facility outside of the buffer zone - at least 1000' from City's public water supply wells or the closest corner of the closest Building Unit (unless allowed by the Building Unit owner) and 1,500' from any High Occupancy Building Unit. In the event that the parties determine that locating a well or oil and gas location outside these distances is not reasonably practicable, the operator shall maximize equipment and wellhead setbacks from Building Units, High Occupancy Building Units, or public water supply wells beyond the setbacks required by the COGCC to the greatest extent reasonably practicable.

- 6. **Discharge valves.** Within an Urban Mitigation Area or a Useable Open Space, openended discharge valves on all storage tanks, pipelines and other containers shall be secured where the operation site is unattended or is accessible to the general public. Open-ended discharge valves shall be placed within the interior of the tank secondary containment. As used in this paragraph, the term "secured" means locked or otherwise secured such that the public cannot operate the valve. If practicable, such valves shall contain remote alarms to alert the operator that a valve has been opened.
- 7. **Burning.** No open burning, other than flaring of natural gas, shall occur on the site of any oil and gas operation. Open flaring of natural gas shall be limited to well completion / flowback activities or as required in an emergency or upset condition unless permission is given by the City.
- 8. **Chemical storage.** The operator shall remove hydraulic fracturing chemicals and flowback from hydraulic fracturing, from the Well Sites within 30 days of completion of fracturing operations. It is understood that hydraulic fracturing chemicals and flowback from hydraulic fracturing on multi-well pads may remain on location or at proximate location as allowed by COGCC so long as drilling operations are ongoing location or if written approval is granted by the City.
- 9. **Water Quality Monitoring Plan.** In all areas of the City, the operator shall comply with COGCC Rule 609 and the steps identified in this section that go beyond that rule. In summary, this requires pre-and post-drilling testing. The rules require oil and gas operators to sample all "Available Water Sources" (if owner has given consent for sampling and testing and has consented to having the sample data obtained made available to the public), with a cap of four (4) water sources, within one-half (1/2) mile radius of a proposed well, multi-well site, or dedicated injection well. "Water Sources" includes registered water wells, permitted or adjudicated springs, and certain monitoring wells. Monitoring, sampling, and testing of well water required herein shall be at the sole expense of the operator.
 - a. Where multiple defined aquifers are present, the sampling locations should attempt to sample from the alluvial aquifer when possible.
 - b. Other considerations deemed necessary by the City Director of Utilities.
 - c. Copies of all water test results shall be provided to the City and landowner within thirty (30) days of collecting the samples.
 - d. If the methane concentration increases by more than 5.0 mg/l between sampling periods, or increases to more than 10 mg/l, the operator shall notify the City immediately.
 - e. If there are no available water sources located within a ½ mile radius of a new oil and gas facility, the Operator, prior to construction, will test the nearest downgradient available water source that is within a one-mile radius of the oil and gas facility.

- 10. **Floodplain.** Any disturbance within a 100-year floodplain will be allowed if the Operator has obtained a Floodplain Development Permit from the City and has complied with all the City's legally adopted floodplain and engineering regulations. Pits, except emergency pits, will not be allowed in 100-year floodplain, as defined in the City's Stormwater Management Manual. A "100-year floodplain" shall be, for purposes of this Section, a "Special Flood Hazard Area" as identified and mapped by the Federal Emergency Management Agency's National Flood Insurance Program.
- 11. **Visual Impacts and aesthetics.** A Visual Mitigation Plan is required pursuant to the BMC Sections 17-64-120 and 17-64-140. To the maximum extent practicable, Operator shall comply with the following aesthetic provisions:
 - a. Oil and gas facilities shall be located away from prominent natural features such as distinctive rock and land forms, vegetative patterns, ditch crossings, City-approved open space areas, and other approved landmarks;
 - b. Structures shall be of minimal size to satisfy present and future functional requirements;
 - Operator shall consult with the City Director of Parks and Recreation when clearing trees and vegetation for construction of oil and gas facilities and feathering and thinning;
 - d. Applicant shall locate facilities at the base of slopes to provide a background of topography or natural cover;
 - e. Replace earth adjacent to water crossings at slopes less than the normal angle of repose for the soil type of the site; and
 - f. Align access roads to follow existing grades and minimize cuts and fills.
 - g. In Urban Mitigation Areas and Useable Open Spaces, one or more of the following landscaping practices may be required by the City where reasonably practicable, on a site-specific basis:
 - i. Landscaping requirements found in Sec. 16-18-170;
 - ii. Establishment and proper maintenance of ground covers, shrubs, trees;
 - iii. Shaping cuts and fills to appear as natural forms;
 - iv. Cutting rock areas to create irregular forms;
 - v. Designing the facility to utilize natural screens; or
 - vi. Construction of fences for use with or instead of landscaping.
- 12. **Electric equipment.** The Operator shall take all reasonable efforts to use electric-powered engines for motors, compressors, and drilling and production equipment and for pumping systems in order to mitigate noise and to reduce emissions, unless the Operator demonstrates to the City that the use of such equipment in a particular situation is not economically feasible or reasonably practicable. If electricity from the grid is not available, the Operator shall use propane or natural gas to power pumps and motors, if reasonably practicable.

13. **Air Quality Mitigations.**

- a. In addition to the requirements under Colorado Air Quality Control Program, Title 25, Section 7, C.R.S., oil and gas production facilities located within 1,320 feet of a building unit shall be:
 - i. Subjected to an instrument-based leak detection and repair (LDAR) inspection at least once a year unless the well is shut in or otherwise not in production;

- ii. VOCs destruction or control technologies with at least 95% efficiency must be employed on all tanks capable of emitting over 2 tons of VOCs annually; and
- iii. If a gas leak of over 10,000 ppm hydrocarbons is discovered the first attempt to repair the leak shall be made no later than 24 hours after discovery. If a repair is not possible within 24 hours, the well should be shut down until a repair can be made. If shutting down the well will not stop the leak, efforts should be made to minimize the leak within the first 24 hours and it shall be reported to the City Local Government Designee.
- iv. Tank unloading without opening thief hatch
- b. To the extent practicable, exhaust from all engines, motors, coolers, and other mechanized equipment shall be vented in a direction away from occupied buildings.
- c. The operator must maintain the following records on file for inspection by the City: (a) certification of compliance with these City and state air quality requirements and documenting any periods of non-compliance, including the date and duration of each deviation and a compliance plan and schedule to achieve compliance; and (b) that the equipment at the well site 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 operator may satisfy this obligation in whole or in part by making its AQCC Regulations No. 7 semi-annual reports and annual self-inspection reports available to the City for the prior calendar year.
- 14. **Fugitive Dust suppression.** Silica dust must be contained to the maximum extent reasonably 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 site to the extent practical given wind conditions. No untreated or unrecycled produced water or other process fluids shall be used for dust suppression. The operator will avoid dust suppression activities within three hundred (300) feet of the high water mark of any waterbody as defined in Section 17-12-20. Definitions, BMC, as the same may be amended from time to time, unless the dust suppressant is water. Safety Data Sheets (MSDS) for any chemical based dust suppressant shall be submitted to the City Manager for approval prior to use.
- 15. **Flammable material.** All ground within twenty five (25) feet 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.
- 16. **Flow lines.** Any newly constructed or substantially modified flow lines on site shall be constructed and operated under the provisions of the COGCC 1100 Series Flow line Regulations and any applicable surface use agreements with the surface owners. To the maximum extent reasonably practicable, any newly constructed or substantially modified flow lines on site shall meet the following requirements:
 - a. All flow lines, shall be sited a minimum of fifty (50) feet away from existing general residential, commercial, and industrial buildings, as well as the high-water mark of any surface water body. This distance shall be measured from the nearest edge of the pipeline.

- b. Pipelines shall be aligned with established roads in order to minimize surface impacts and reduce disturbance.
- c. Operators shall share existing pipeline rights- of-way and consolidate new corridors for pipeline rights-of-way to minimize surface impacts.
- d. When crossing streams, rivers, or irrigation ditches with a pipeline, operators shall use boring technology, or other technologies approved by the City, to minimize negative impacts to the channel, bank, and riparian areas.
- 17. **Removal of debris.** When an oil and gas operation becomes capable of producing, all construction-related debris shall be removed from the site for proper disposal. The site shall be maintained free of debris and excess materials at all times during operation. Materials shall not be buried or burned on-site.
- 18. **Removal of equipment.** All equipment used for drilling, completion, or recompletion and maintenance of the facility shall be removed from the site within thirty (30) days of completion of those activities, weather conditions permitting, unless otherwise agreed to by the surface owner. Permanent storage of removable equipment on Well Pad sites shall not be allowed. It is understood that drilling and completion equipment necessary for multi-well pads may remain on location, so long as drilling operations are ongoing on that location or at proximate locations as allowed by COGCC or if written approval is granted by the City.