

1 extraction (i.e. subsurface extraction)
2 as an allowed use; or

3 2. Has a future land use designation of
4 Industrial / Distribution, General
5 Industrial, or DIA Technology.

6 Measurements shall be taken from the edge of the proposed
7 Production Site to the parcel boundary. The edge of the
8 proposed Production Site shall be defined as the maximum
9 extent of the facility during the production phase.

10 2. Alternative Site Location Analysis. If the site is not deemed
11 eligible pursuant to the limited exception, the applicant shall
12 prepare and submit an alternative site location analysis
13 including, at a minimum, the following information:

14 1. All drilling and spacing units proposed by the
15 applicant within the City and within 1 mile of the City's
16 municipal boundaries;

17 2. One or more maps identifying Disproportionately
18 Impacted Communities, as defined by the COGCC,
19 within 1 mile of all drilling and spacing units proposed
20 by the applicant;

21 2.3. The location of all features listed in section 21-
22 3235(5)(b)(i) within 1 mile of all drilling and spacing
23 units proposed by the applicant;

24 3.4. A minimum of three potential sites that can
25 reasonably access the mineral resources within the
26 proposed drilling and spacing unit(s), including the
27 following information for each site:

28 1. General narrative description of each
29 site;

30 2. The applicant's basis for proposing
31 each site;

32 3. A summary of the off-site impacts that
33 may be associated with each site;

34 4. Any factors listed in section 21-
35 3235(5)(b)(i) that the particular site
36 does not meet;

- 1 (x) A Will-Serve Letter from the applicable fire district(s), stating that
2 the Operator has agreed to provide adequate emergency
3 response equipment, any necessary training, or fee-in-lieu
4 satisfactory to the district, to adequately respond to potential
5 events that may result from Operations;
- 6 (y) A Resource Mobilization/Cache Plan to ensure emergency
7 responders have available the equipment necessary to respond
8 to any emergency identified in the emergency response plan,
9 which shall provide that the equipment be stationed in locations
10 as to be readily available for any emergency for any oil and gas
11 facility covered by the plan;
- 12 (z) A Waste Management Plan that identifies the projected waste
13 from the site and plans for disposal of such waste;
- 14 (aa) A Hazardous Materials Management Plan that identifies all
15 hazardous materials that will be brought on site, how they will be
16 transported and used, and measures to prevent any release of
17 those materials;
- 18 (bb) A Temporary Sanitary Facilities Plan describing the sanitary
19 facilities that will be provided for persons present at the Well Site;
- 20 (cc) A Water Quality Monitoring Plan describing water quality
21 monitoring practices as required by the BMP Document;
- 22 (dd) A Spill Prevention, Control, and Countermeasure Plan describing
23 spill prevention and mitigation practices as required by the BMP
24 Document;
- 25 (ee) A Stormwater Pollution Prevention and Erosion Control Plan to
26 minimize impacts to surface waters from erosion, sediment, and
27 other sources of non-point pollution. The stormwater control plan
28 required by the COGCC ~~Rule 1002(f)~~ may be provided to
29 establish compliance with this provision;
- 30 (ff) A Wetlands Protection Plan, if any part of a proposed Operation
31 abuts or is adjacent to or may affect or impact a wetland,
32 demonstrating that the Operations shall not cause degradation to
33 wetlands within the City;

- 1 ii. Continuous monitoring for hydrocarbons shall occur during
2 the drilling and completions phase of oil and gas
3 development. Each hydrocarbon monitor shall include a
4 sampling device to automatically collect an air sample when
5 the monitor levels reach a trigger level defined below in (iii).
6 Monitors shall also include meteorological monitoring
7 capabilities. Continuous monitoring may not cease until three
8 years have passed from the date the last well drilled on the
9 site has entered the production phase, unless any use defined
10 in 21-5266(6a) is within 1,000' of the edge of the well site. In
11 such instance, continuous monitoring shall be required until
12 all wells are plugged and abandoned.
- 13 iii. An increase in the detection of hydrocarbon greater than the
14 ambient levels determined during baseline sampling plus the
15 anticipated change based on Operator-provided impacts of
16 modeled operations shall require the Operator to collect a
17 further sample utilizing an 8-hour canister sample immediately
18 after detection.
- 19 iv. In the event a canister sample is triggered, the city shall be
20 notified within one hour after the occurrence of such event.
21 Depending on the circumstances, expedited lab analysis may
22 be required.

23 **(13) Abandonment and Plugging.** In response to a reportable safety event,
24 as defined by COGCC rules, Rule 602(c), a spill, release, or a reported
25 and substantiated nuisance that occurs outside of drilling and
26 completion Operations, the City may require additional air quality
27 sampling or monitoring as deemed reasonably necessary by City. The
28 Operator shall reimburse the City for all costs incurred by the City as a
29 result.

- 30 (a) The Operator shall comply with all COGCC rules in relation to
31 abandonment and plugging.
- 32 (b) For new Oil and Gas Facilities, the Operator shall be required to plug
33 and abandon all existing vertical wells owned or controlled by the
34 Operator within a proposed drilling and spacing unit (DSU) that target
35 the same formation as any proposed horizontal wells.
- 36 (c) Operators of wells that are to be plugged and abandoned shall notify
37 both the City's Local Government Designee (LGD) and the
38 applicable fire district not less than one week prior to commencing
39 plugging operations.

- 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; and
 - vi. Utilizing an electric drilling rig, where practicable.
- e. If a resident of a Residential Building Unit within 2000’ of a Well Site complains of odor (either directly to the Operator, to the COGCC, or to the City) Operator shall determine whether the odor is caused by Operator's Operations. Operator shall report its conclusions, including the factual basis for the conclusions, to the City and the complainant. If the odor is caused by Operator's Operations, Operator shall resolve the odor concern to the maximum extent practicable within 24 hours.

9. Reduced Emission Completions (Green Completions).

- a. Operator shall employ reduced emission completions (“Green Completions”) in compliance with federal and state requirements.
- b. Operator shall safely maximize resource recovery and minimize releases to the atmosphere during flowback and subsequent recovery/operation.
- c. Operator shall install gas gathering lines, separators, and sand traps capable of supporting ~~reduced emission completion practices~~green completions, per the requirements of the Colorado Air Quality Control Commission (AQCC) and COGCC ~~provisions of COGCC Rule 805,~~ as may be amended.
- d. Operator shall comply with 40 CFR 60 (Subpart OOOO), as may be amended, for green completions.
- e. Operator shall not conduct or permit uncontrolled venting other than where necessary for safety.
- f. If allowed, temporary flowback flaring and oxidizing equipment shall include the following:
 - i. Adequately sized equipment to handle 1.5 times the largest flowback volume of gas from a vertical/directional and/or horizontally completed well respectively as reported to the COGCC in a ten mile radius;
 - ii. Valves and porting available to divert gas to flaring and oxidizing equipment; pursuant to the above Rules 40 CFR 60 (Subpart OOOO) for ~~reduced emission completion practices~~ green completions & COGCC ~~rules~~Rule 805, as each may be amended;
 - iii. Auxiliary fueled with sufficient supply and heat to combust or oxidize non-combustible gases in order to control odors and hazardous gases; and
 - iv. Flowback combustion devices shall be equipped with a reliable continuous ignition source over the duration of flowback, except in conditions that may result in a fire hazard or explosion.

- b. All berms and containment devices shall be inspected quarterly by Operator and maintained in good condition.
- c. Secondary containment, such as duck ponds or lined earthen berms for temporary tanks, shall be used.
- d. Secondary containment 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.
- e. 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.
- f. For locations within 500' and up-gradient of a surface water body, tertiary containment, such as an earthen berm, is required around respective production facilities.
5. Spill Response Kits. Operator shall make available at each Well Site, or require to be carried by field staff or contractors, Spill Response Kits capable of mitigating small to mid-size spills (e.g., 5 to 50 gallons).
6. Maintenance of Machinery.
- a. Operator shall not conduct vehicle maintenance at any Well Site.
- b. Operator shall not conduct routine field maintenance of mobile machinery within 300' of any water body as defined by LDC.
- c. All fueling must occur over impervious material.
7. Spills.
- a. Operator shall prepare, and provide to the City, a Fluid Leak Detection plan as required by COGCC rules.
- ~~a.~~b. Operator shall notify the City and South Adams County Water and Sanitation District ("SACWSD") of spills at any Well Site that has a reportable spill quantity under any law.
- ~~b.~~c. Operator shall provide the City with a copy of any self-reporting submissions that Operator provides to the COGCC due to any spills at any Well Site.
8. Stormwater. All Operations shall comply and conform to the City's stormwater control regulations.
9. Water Quality Monitoring Plan.
- a. Operations shall not cause degradation to surface or ground water within the City or to wetlands within the City.
- b. Any approved variance to COGCC rules and regulations relating to the same matters shall be reported to the City and shall modify these requirements.
- c. Using records of the Colorado Division of Water Resources, Operator must implement a water quality monitoring plan that includes the following:

- 1 **E. Safety.** Operator shall comply with these safety standards to: protect human health and safety; prevent injury
2 to plant and animal life; prevent damage to property; and prevent unreasonable interference with the public
3 welfare.
- 4 1. Use of Pipelines.
- 5 a. Operator shall use pipelines for the transport of oil, gas, and produced water from Well Sites where
6 feasible, and shall utilize such pipelines at each Well Site before the Production Phase commences.
- 7 b. Operator shall be permitted to utilize temporary tanks during drilling, flowback, workover,
8 completion, hydraulic fracturing and maintenance operations.
- 9 c. Operator shall obtain all permits necessary for the construction and use of pipelines, including a
10 conditional use permit.
- 11 2. Bradenhead Monitoring. Operator shall conduct bradenhead monitoring on all wells in accordance with
12 COGCC rules and regulations.
- 13 3. Burning. No open burning shall occur on the site of any oil and gas operation except flaring as allowed in
14 this BMP Document.
- 15 4. Discharge Valves. Open-ended discharge valves on all storage tanks, pipelines and other containers within
16 any Well Site shall be secured and shall not be accessible to the general public. Open-ended discharge
17 valves within any Well Site shall be placed within the interior of the secondary containment area.
- 18 5. Flammable Material. All ground within 25' of any tank, or other structure containing flammable or
19 combustible materials, shall be kept free of dry weeds, grass or rubbish, and shall conform to COGCC
20 ~~600 Series~~ Safety Regulations and the applicable fire code. Landscaping is prohibited within 25' of any
21 tank or other structure containing flammable or combustible materials.
- 22 6. Flowlines.
- 23 a. Any newly constructed or substantially modified flowlines on any Well Site shall be constructed and
24 operated under the provisions of the COGCC ~~1100 Series~~ Flowline Regulations and any future
25 COGCC Flowline Regulations, as either may be amended, and any applicable surface use agreements
26 with the surface owners.
- 27 b. Operator shall pressure test all flowlines following their construction, including those rated at less than
28 15 PSI.
- 29 c. Operator will provide to the City all records required to be submitted to state agencies related to
30 inspections, pressure testing, accidents and other safety incidents related to flowlines at any Well Site
31 and, upon specific request by the City, Operator will provide to the City any other records submitted
32 to State agencies related to flowlines at the Well Sites.
- 33 d. All new flowlines and pipelines shall have the legal description of the location recorded with the
34 Adams County Clerk and Recorder within thirty (30) days of completion of construction.
- 35 e. Abandonment of any recorded flowlines shall be recorded with the Adams County Clerk and Recorder
36 within thirty (30) days after abandonment.

- 1 c. Operator shall identify any planned mitigation response (including emergency response, tactical
2 response, and notifications) for certain identified risks.
- 3 d. Operator will implement a compliance and audit program. The Operator shall determine and document
4 an appropriate response to each of the findings of the compliance audit, and document that deficiencies
5 have been corrected. If Operator utilizes a self-reporting mechanism to any respective agency, that
6 self-reporting mechanism will be described in the Risk Management Plan. If Operator self-reports,
7 any findings included in the self-reporting to any other respective agency will be provided to the City.
- 8 e. City may retain outside consultants, at Operator's cost, to review Risk Management Plan and may
9 require modifications to Risk Management Plan based on its review.

10 5. Incident and accident reporting.

- 11 a. Within twenty-four (24) of any reportable safety event, as defined by the COGCC ~~in Rule 602(erules)~~,
12 as may be amended, or any accident or natural event involving a fire, explosion or detonation requiring
13 emergency services or completion of a COGCC Form 22, Operator shall submit a report to the City
14 that includes the following, to the extent available: fuel source, location, proximity to residences and
15 other occupied buildings, cause, duration, intensity, volume, specifics and degree of damage to
16 properties, if any beyond the Well Site, injuries to persons, emergency response, and remedial and
17 preventative measures to be taken within a specified amount of time. Additional reporting shall be
18 provided after the conclusion of the event, if the event lasts longer than twenty-four (24) hours.
- 19 b. The City may require Operator to conduct a root cause analysis of any reportable safety events or
20 Grade 1 gas leaks, each as defined by the COGCC.
- 21 c. Any spill or release that is reportable to the COGCC shall be simultaneously reported to the City's
22 LGD and the applicable fire district.

23 6. Signs and Markers. Operator shall mark each and every well in a conspicuous place, from the time of
24 initial drilling until final abandonment, as follows:

25 a. General Sign Requirements.

- 26 iv. No sign required under this BMP shall be installed at a height exceeding 6'.
- 27 v. Operator shall maintain signs in a legible condition and shall replace damaged or vandalized signs
28 within sixty (60) days.

29 b. Drilling and Recompletion Operations.

- 30 iv. Operator shall provide directional signs, no less than three (3) and no more than six (6) sq. ft. in
31 size, during all drilling and recompletion operations.
- 32 v. Such signs shall be at locations sufficient to advise emergency crews where drilling or
33 recompletion is taking place.
- 34 vi. Such sign locations shall include the first point of intersection of a public road and the rig access
35 road and thereafter at each intersection of the rig access route, except where the route to the well
36 is clearly obvious to uninformed third parties in any weather or condition.

vii. Such signs not needed to meet other obligations under these rules shall be removed as soon as practical after drilling and recompletion operations are complete.

c. Permanent Designations.

iv. 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.

v. 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.

vi. Tanks and Containers. All tanks with a capacity of ten (10) barrels or greater shall be labeled or posted with the following information:

a) Name of Operator;

b) Operator's emergency contact telephone number;

c) Tank capacity;

d) Tank contents; and

e) National Fire Protection Association (NFPA) Label.

~~3.7.~~ Emergency Response Plan.

a. Operator shall complete and implement all components of a detailed Emergency Response Plan subject to the approval of the City's emergency manager and the applicable fire district must approve of the Emergency Response Plan ("Plan") before the Drilling Phase commences.

b. Operator shall review the plan annually and file any updates with the City's Emergency Manager and the applicable fire district. If no updates to the Plan are made then Operator shall provide notice of "No Change."

c. The Plan shall include:

iv. Name, address and phone number, including twenty-four-hour numbers for at least two (2) persons responsible for field operations as well as the contact information for any subcontractor of Operator engaged for well-control emergencies;

v. A process by which the Operator notifies surrounding neighbors to inform them about the on-site operations and emergencies and to provide sufficient contact information for surrounding neighbors to communicate with the Operator;

- 1 vi. An as-built facilities map in a format suitable for input into the City's GIS system depicting the
2 locations and type of above and below ground facilities, including sizes and depths below grade
3 of all oil and gas flow lines and associated equipment, isolation valves, surface operations and
4 their functions, as well as transportation routes to and from exploration and development sites, for
5 response and management purposes. The information concerning flowlines and isolation valves
6 shall be marked and treated as confidential and shall only be disclosed in the event of an emergency
7 or to emergency responders or for the training of emergency responders;
- 8 vii. Detailed information addressing each reasonable potential emergency that may be associated with
9 the operation, including without limitation: explosions; fires; gas; oil or water pipeline leaks or
10 ruptures; hydrogen sulfide or other toxic gas emissions; hazardous material vehicle accidents or
11 spills; and natural disasters;
- 12 viii. An emergency evacuation plan for the Well Site and any person within one-half (1/2) mile of the
13 Well Site.
- 14 ix. A provision that any spill outside of the containment area, that has the potential to leave the facility
15 or to threaten waters of the state, or as required by the City-approved plan shall be reported to the
16 local dispatch and the COGCC Director in accordance with COGCC regulations;
- 17 x. Detailed information identifying access, and health care facilities anticipated to be used;
- 18 xi. A project-specific plan for any project that involves drilling or penetrating through known zones
19 of hydrogen sulfide gas;
- 20 xii. A provision obligating the Operator to reimburse the appropriate agencies for their expenses
21 resulting from the Operator's operations; and
- 22 xiii. A statement and detailed information indicating that the Operator has adequate personnel, supplies,
23 and training to implement the plan immediately at all times during construction and operations.
- 24 d. The Operator shall have current **chemical inventory including** Material Safety Data Sheets (MSDS)
25 for all chemicals used or stored on a Well Site. The **chemical inventory and** MSDS sheets shall be
26 provided immediately upon request to City officials, a public safety officer, or a health professional as
27 required by COGCC **rules, as amended** Rule 205.
- 28 e. All training associated with the Plan shall be coordinated with the City and the fire districts within the
29 City.
- 30 f. Operator shall provide the City with its shutdown protocols and promptly notify the City of any shut
31 downs that would have an impact to any area beyond the confines of the Well Site.

32 **H. Insurance.** Operator shall comply with these insurance standards to: protect human health and safety; prevent
33 damage to property; prevent unacceptable losses to public finances; and prevent unreasonable interference
34 with the public welfare. These standards are established to improve and to prevent degradation to the quality
35 of life and the general welfare in the City. The requirements of these BMPs may be reduced by the Director
36 with the consent of the City's designated Risk Manager and Director of Finance based on the Operator's
37 financial condition, additional protections and guarantees, and the size, scope, location, and nature of the
38 Operations.