



**City and County of Broomfield, Colorado**

**CITY COUNCIL AGENDA MEMORANDUM**

To: Mayor and City Council  
 From: Charles Ozaki, City and County Manager  
 Prepared by: Anna Bertanzetti, Principal Planner, John Hilgers, Planning Director, David Shinneman, Community Development Director, Kevin Standbridge, Deputy City and County Manager, Tami Yellico, Deputy City and County Attorney

<b>Meeting Date</b>	<b>Agenda Category</b>	<b>Agenda Item #</b>
August 27, 2013	Council Business	9(a)
<b>Agenda Title:</b>	1. <b>Public Hearing on Proposed Memorial 22-3 PAD, Brozovich MA 8-2 PAD, Nordstrom 5-4 PAD, and Nordstrom 2-4 PAD Oil and Gas Wells Uses by Special Review</b> <b>Property Location:</b> South of State Highway 7 and West of Interstate 25 (Memorial), South of W. 160th Avenue and West of Sheridan Parkway (Brozovich), and North of W. 160th Avenue and East of Sheridan Parkway (Nordstrom) <b>Applicant:</b> Sovereign Operating Company, LLC	
	2. <b>Consideration of Resolution No. 2013-135, Approving an Oil and Gas Operator Agreement By and Through Sovereign Operating Company, LLC and its Affiliates and the City and County of Broomfield</b>	
	3. <b>Consideration of Resolution No. 2013-55, Regarding the Applications</b>	

**Summary**

- The applicant requests approval of three uses by special review (USR) for four oil and gas well sites. These well sites include: six new oil and gas wells (named Memorial 3A, Memorial 3B, Memorial 21-3, Memorial 22-3, Memorial 31-3, Memorial 32-3) on a 50-acre property located south of State Highway 7 (SH 7) and west of Interstate 25 (I 25), 11 new oil and gas wells (named Asher 22-4, Nordstrom 34-4, Nordstrom 4D, Nordstrom 43-4, Nordstrom 44-4, Davis 43-5, Davis 44-5, Nordstrom 4C, Nordstrom 13-4, Nordstrom 23-4, and Nordstrom 24-4) on a 182-acre property located north of W. 160th Avenue and east of Sheridan Parkway, and four new oil and gas wells (named Brozovich 41-8, Davis 5D, Davis 33-5, and Davis 34-5) on a 16.7-acre property located south of W. 160th Avenue and west of Sheridan Parkway ("Proposed Wells").
- There are existing wells at the Brozovich MA 8-2, Nordstrom 2-4, and Nordstrom 5-4 well sites. There are no existing wells at the Memorial 22-3 well site. The three existing well sites will continue to use existing access roads. The new well site (Memorial 22-3) will utilize an existing access road to SH 7 currently utilized by the Evergreen Memorial Cemetery, which is a non-exclusive access drive over property owned by McWhinney CCOB Land Investments, LLC.
- The wells comply with regulations of the Colorado Oil and Gas Conservation Commission on density.
- The sites are zoned Planned Unit Development (PUD) and are within the North Park PUD Plan. A USR is required for well operations.
- The Proposed Wells are directionally drilled to lessen potential impact on future development of the property. This allows shared drilling pads. The property owner, McWhinney CCOB Land Investments, LLC., has been working with the applicant on all of the well sites within North Park and McWhinney is in agreement with, and supports, the locations as proposed by the applicant.
- The City Council conducted a Town Hall meeting on May 22, 2013, to gather information from residents on oil and gas development and has held various study sessions on the issue. More information on this process and copies of public comments can be found on Broomfield's website at <http://www.broomfield.org/index.aspx?NID=1820>.
- On May 13, 2013, the Planning and Zoning Commission (P&Z) adopted Resolution PZ 2013-13 recommending approval of the USR for Memorial 22-3 PAD. On March 25, 2013, the P&Z adopted Resolution PZ 2013-10 recommending approval of the USR for Nordstrom 5-4 PAD and 2-4 PAD. On April 8, 2013, the P&Z adopted Resolution No. 2013-12 recommending approval of the USR for Brozovich MA 8-2 PAD.
- Staff has negotiated an agreement with the applicant that includes detailed best management practices for the Proposed Wells as well as for wells on 6 additional well sites ("Additional Well Sites"). These best management practices address issues associated with air quality, water quality, inspections, enforcement, and emergency planning. It is proposed that this agreement be adopted and set forth the conditions of approval for USR permits for the Proposed Wells.
- Proposed Resolution No. 2013-135 approves the Oil and Gas Operator Agreement between Sovereign Operating Company, LLC and Broomfield.
- Proposed Resolution No. 2013-55 approves the three USR applications for new oil and gas wells.

**Prior Council Action**

- The properties were annexed in 1989 by Ordinance No. 818, in 1988 by Ordinance No. 773, and 1988 by Ordinance No. 774.
- The City Council approved the North Park PUD Plan and Preliminary Plat on October 13, 2009 (Resolution No. 2009-107).
- On April 23, 2013, City Council continued the proposed Nordstrom 5-4 PAD and 2-4 PAD and Brozovich MA 8-2 PAD requests for Use by Special Review to the June 25, 2013, City Council meeting to allow for additional time for discussion of oil and gas well land uses by the Broomfield City Council.
- On June 25, 2013, City Council continued the hearings for a second time to the July 23, 2013, City Council meeting to allow additional time for discussion of oil and gas well land uses by the Broomfield City Council.
- On July 23, 2013, City Council continued the proposed Nordstrom 5-4 PAD and 2-4 PAD, Brozovich MA 8-2 PAD, and Memorial 22-3 USR to the August 27, 2013, City Council meeting to allow for additional time for discussion of oil and gas well land uses by the Broomfield City Council.

**Financial Considerations**

- The proposal is consistent with Broomfield's adopted Long Range Financial Plan.

**Alternatives**

- Based on the testimony and evidence presented on the record at the public hearing:
- If the proposed application complies with the applicable Broomfield Municipal Code (BMC) review standards and is consistent with the intent of the Comprehensive Plan:
    - Approval.
  - If the proposed plan does not comply with the applicable BMC review standards or is inconsistent with the intent of the Comprehensive Plan:
    - Remand the case to the Planning and Zoning Commission for additional review and recommendations;
    - Postpone action on the resolution and continue the hearing to a date certain; or
    - Direct the City and County Attorney to draft findings to support denial of the application.

**Proposed Actions/Recommendations**

- Hold the public hearing.
- Following and subject to the results of the public hearing, if the Council wishes to approve the application, it is recommended...  
**That Resolution No. 2013-135 be adopted.**  
**That Resolution No. 2013-55 be adopted.**

**Memorial 22-3 PAD, Brozovich MA 8-2 PAD,  
Nordstrom 5-4 PAD, and Nordstrom 2-4 PAD  
Oil and Gas Wells Uses by Special Review**

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## I. SUMMARY

The applicant requests approval of three uses by special review for twenty-one oil and gas wells. The wells are located at four well sites. A map showing the location of the proposed well sites in relation to the existing or abandoned oil and gas wells in Broomfield is included as Attachment 1. The locations of the wells are further detailed as follows and as illustrated in the map below:

- Six new oil and gas wells (named Memorial 3A, Memorial 3B, Memorial 21-3, Memorial 22-3, Memorial 31-3, and Memorial 32-3) on a 50-acre property located south of State Highway 7 (SH 7) and west of Interstate 25 (I 25);
- Eleven new oil and gas wells (named Asher 22-4, Nordstrom 34-4, Nordstrom 4D, Nordstrom 43-4, Nordstrom 44-4, Davis 43-5, Davis 44-5, Nordstrom 4C, Nordstrom 13-4, Nordstrom 23-4, and Nordstrom 24-4) on a 182-acre property located north of W. 160th Avenue and east of Sheridan Parkway; and
- Four new oil and gas wells (named Brozovich 41-8, Davis 5D, Davis 33-5, and Davis 34-5) on a 16.7-acre property located south of W. 160th Avenue and west of Sheridan Parkway.



## II. ZONING AND OTHER APPLICABLE PLANS

### Zoning and PUD Plan

The sites are zoned Planned Unit Development (PUD) and are within the North Park PUD Plan area as approved by City Council on October 13, 2009. Drilling of a new well is only permitted in the North Park PUD Plan subject to a use by special review consistent with Chapter 17-54 of the Broomfield Municipal Code.

## III. CURRENT APPLICATION – DETAILED DESCRIPTION AND STAFF REVIEW

### Applicant and Property Owner

The Use by Special Review applicant and mineral rights owner is CCOB Oil Investments, LLC, and McWhinney CCOB Land Investments, LLC. The owner of the properties is McWhinney CCOB Land Investments, LLC. The operating company is Sovereign Operating Company, LLC.

### Use by Special Review and Area Context

The applicant requests approval of 21 new wells as specified below:

- Six new oil and gas wells (named Memorial 3A, Memorial 3B, Memorial 21-3, Memorial 22-3, Memorial 31-3, and Memorial 32-3) on a 50-acre property located south of State Highway 7 (SH 7) and west of Interstate 25 (I 25);
- Eleven new oil and gas wells (named Asher 22-4, Nordstrom 34-4, Nordstrom 4D, Nordstrom 43-4, Nordstrom 44-4, Davis 43-5, Davis 44-5, Nordstrom 4C, Nordstrom 13-4, Nordstrom 23-4, and Nordstrom 24-4) on a 182-acre property located north of W. 160th Avenue and east of Sheridan Parkway; and
- Four new oil and gas wells (named Brozovich 41-8, Davis 5D, Davis 33-5, and Davis 34-5) on a 16.7-acre property located south of W. 160th Avenue and west of Sheridan Parkway.

The proposed wells are directionally drilled. Each well is utilizing existing access roads. The Memorial well will utilize an access road currently located on property owned by McWhinney CCOB Land Investments, LLC, and utilized by the Evergreen Memorial Cemetery. The other three well sites will utilize access roads currently used for accessing the respective well sites.

Each of the four well sites meets or exceeds setback requirements of the Broomfield Municipal Code (350 feet from any occupied building or occupied building permitted for construction and 75 feet from any public right-of-way) for wells as further specified below:

Nordstrom 5-4 PAD and Nordstrom 2-4 PAD Well Sites (see map on following page)

- The nearest occupied house to the Nordstrom 2-4 well site is approximately 2,640 feet away in the Anthem Highlands residential neighborhood.
- The nearest occupied house to the Nordstrom 5-4 well site is approximately 4,752 feet away in the Anthem Filing No. 8 residential neighborhood. The nearest platted single-family residential lots to the Nordstrom 5-4 well site are approximately 3,696 feet away in the Anthem Filing No. 15 residential neighborhood.
- The Preble Creek drainageway bisects the parcel from the northeast to the southwest. Both well sites are located near the drainageway, but are not in the 100-year flood plain.
- Surrounding property is agricultural land but is intended for future mixed-use development per the North Park PUD Plan.

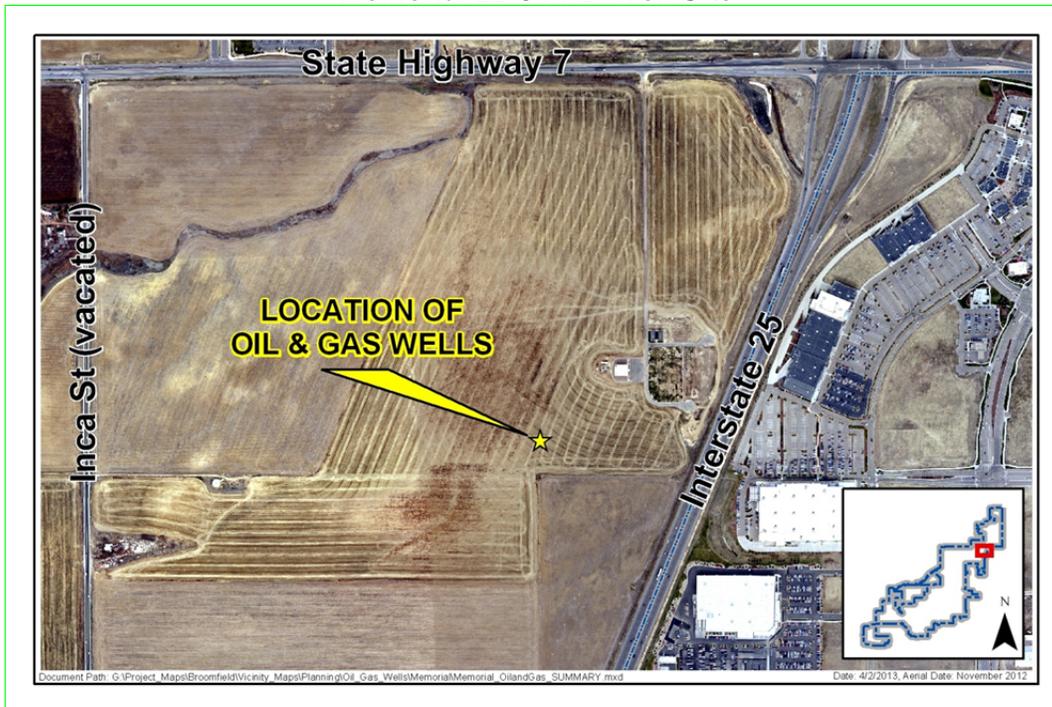
**Nordstrom 5-4 PAD and Nordstrom 2-4 PAD Well Sites**



Memorial 22-3 PAD Well Site (see map below)

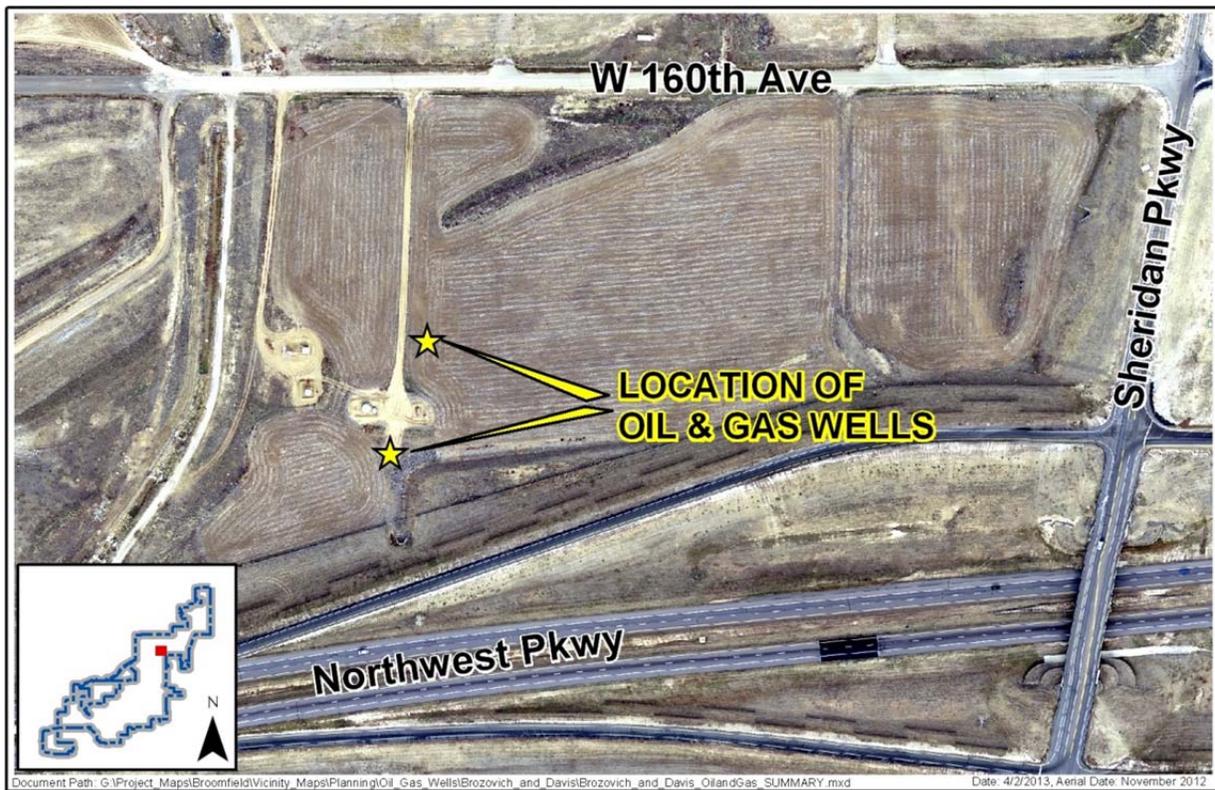
- The nearest occupied house is approximately 2,900 feet away adjacent to Huron Street.
- The nearest occupied structure is 550 feet away in the Evergreen Cemetery (an office and grief resource center in the mausoleum).
- Surrounding property is agricultural land but is intended for future mixed-use per the North Park PUD Plan.

**Memorial 22-3 PAD Well Site**



Brozovich MA 8-2 PAD Well Site (see below)

- The nearest occupied house is approximately 2,000 feet away in the Anthem Highlands residential neighborhood.
- The nearest platted single-family residential lots is 1,280 feet away in the Anthem Filing No. 21 residential neighborhood.
- The nearest potential single-family residential lot (land zoned for single-family residential, but no plat proposed or approved) could be 550 feet away in the Anthem West PUD Plan on the north side of W. 160th Avenue.
- The Community Ditch is located 130 feet from the nearest piece of existing well equipment. A trail runs along the east side of the Community Ditch. The trail is 246 feet from the nearest proposed piece of well equipment.
- Surrounding property is agricultural land but is intended for future mixed-use per the North Park PUD Plan. The parcel where the Brozovich MA 8-2 PAD is located is intended for future open lands.



**Brozovich MA 8-2 PAD Well Site**

**Site Plans**

The uses by special review plan sets include a site plan that shows the proposed wells including setback measured to the nearest right-of-ways or structures when applicable.

A detailed site plan of the well site (access road, tank battery, wells, equipment, etc.) is included with each application on sheet C4. A narrative is included with each application. The narratives include information regarding emergency response notification, operating plans, wildlife mitigation, weed control, and sanitary services.

### **Access**

The applicant has proposed to utilize existing access roads across property owned by McWhinney CCOB Land Investments, LLC.

The access road to the Memorial well site is also utilized for a means to access the Evergreen Memorial Cemetery. The well operator has worked with the cemetery and the property owner to ensure the oil and gas well traffic will not be detrimental to the cemetery operations.

The Brozovich well includes two existing access roads. One access road is along the west side of the property and the second access drive is located in the middle of the property. To reduce the impact of the wells on the property, the applicant is proposing to remove the eastern access drive and improve the access drive that runs along the west side of the property.

There are no proposed changes to the alignment of the access drives currently utilized to access the two Nordstrom well sites.

The applicant has provided the following estimates for truck traffic the well site will generate:

- Drilling phase: 20 trucks/day. The length of the drilling phase depends on the number of wells on each site (usually about six days per well).
- Completion phase: 15 trucks/well/day to fill the tanks before hydraulic fracturing (over three days). Then 25 trucks/day per well with each well taking one day to complete.
- Production phase: about two trucks/day.

### **Setbacks**

According to the Broomfield Municipal Code (BMC) Section 17-54-110, well and production sites shall be setback not less than 350 feet from any occupied building or occupied building permitted for construction and shall be setback not less than 75 feet from any public right-of-way.

Colorado's Oil and Gas Conservation Commission recently approved a requirement that new oil and gas wells be located at least 500 feet from homes and buildings. The proposed wells comply with the new setback requirement.

The proposed facilities exceed all setback requirements.

### **Noise**

According to the Broomfield Health and Human Services Department, oil and gas wells such as the proposed well sites will typically have 24-hour per day, seven days per week, set-up operation which typically last several weeks prior to oil and gas extraction. The proposed uses by special review comply with the Rules and Regulations of the Colorado Oil & Gas Conservation Commission.

### **Grading**

Interim grading is shown for each of the well sites within the use by special review plan sets. The grading shown will be in place during the drilling operations of the new wells. Once drilling is complete and the wells move into production, the grades will be restored to their natural contours. Berms will be placed around the tank battery (water and oil tanks) to ensure that any spills or leakages are contained. Any water that accumulates in the bermed area will be moved by tank truck to a permitted disposal facility for proper disposal.

### **Visual Mitigation**

In accordance with the BMC, lights must be shielded to the maximum extent practical, facilities must be painted in accordance with Oil & Gas Conservation Commission regulations, and landscape practices must be implemented to screen if necessary. The applicant will comply with all Rules and Regulations of the Colorado Oil & Gas Commission. Since the wells will not be located near a public street, no additional visual mitigation should be necessary for the proposed wells. Future land uses in the area can provide additional screening.

### **Wildlife Mitigation**

The applicant included a note on each plan set under BMC Section 17-54-230 stating they will abide by Broomfield policies for prairie dog conservation and management. These policies are listed in Chapter 6-48 of the Broomfield Municipal Code.

### **Public Participation**

The City Council conducted a Town Hall meeting on May 22, 2013, to gather information from residents regarding the development of oil and gas resources in Broomfield and potential actions to address those concerns. During the Town Hall meeting residents provided a wide range of comments.

At the Town Hall meeting and through additional correspondence, many residents expressed concerns regarding: their belief that there is not sufficient research on the potential dangers from oil and gas well development; groundwater contamination; the impact of emissions on air quality; use of water; truck traffic during drilling; noise and light pollution during drilling; and, the frequency of inspections by regulators.

Some residents requested that Broomfield enact a ban on fracking for oil and gas well development in Broomfield, others suggested a moratorium on fracking until recently begun studies on the health effects of fracking are completed, some suggested that Broomfield update its regulations regarding oil and gas well development, others suggested that no additional actions regarding oil and gas well development are necessary.

A summary of the issues compiled by CDR Associates, who provided the facilitation services at the Town Hall meeting, is Attachment 2 to this memorandum. Copies of correspondence received by the City Council, at the Town Hall meeting and via email, regarding this issue, a video of the Town Hall meeting, and additional information can be found on Broomfield's website at <http://www.broomfield.org/index.aspx?NID=1820>.

### ***Proposed Charter Amendment***

Pursuant to Colorado law, voters in Broomfield have circulated petitions requesting that a Charter Amendment be placed on the ballot for the November 2013 general election. Petition circulators needed to submit petitions containing 2,082 valid signatures of registered Broomfield voters in order to qualify the measure for the ballot.

The Broomfield Clerk and Recorder has certified that the petitioners submitted sufficient valid signatures and the proposed Charter Amendment will be voted upon at the November 2013 general election.

The proposed Charter Amendment would prohibit hydraulic fracturing to extract oil, gas, or other hydrocarbons within the City and County of Broomfield for a five year period and would prohibit the storage in open pits or disposal of solid or liquid waste created in connection with the hydraulic fracturing process. The proposed Charter Amendment seeks retroactive application of these restrictions to “the date the measure was found to have qualified for placement on the ballot.”

#### **IV. STAFF REVIEW OF KEY ISSUES - USES BY SPECIAL REVIEW**

No key issues have been identified by staff related to conformance with the Municipal Code requirements for use by special review for oil and gas well operations.

#### **V. PLANNING AND ZONING COMMISSION RECOMMENDATION**

On March 25, 2013, the Planning and Zoning Commission held a public hearing on the proposed Nordstrom 5-4 PAD and 1-4 PAD wells. Following the public hearing, the Commission voted unanimously to recommend approval of the application.

On April 8, 2013, the Planning and Zoning Commission held a public hearing on the proposed Brozovich MA 8-2 PAD wells. Following the public hearing, the Commission voted to recommend approval of the application.

On April 8, 2013, the Planning and Zoning Commission held a public hearing on the proposed Memorial 22-3 PAD wells and continued the hearing to May 13, 2013, to allow additional time for the applicant to work with an adjacent property owner and to revise the plans to show distances and bearings on the parcel boundaries. Following the public hearing on May 13, 2013, the Commission voted to recommend approval of the application.

#### **VI. PROPOSED OPERATOR AGREEMENT**

Staff has negotiated an agreement with the applicant that includes detailed best management practices for the Proposed Wells as well as for wells on six additional wells (“Additional Well Sites”). These best management practices address issues associated with air quality, water quality, inspections, enforcement, and emergency planning. It is proposed that this agreement be adopted and set forth the conditions of approval for use by special review permits for the Proposed Wells.

Sovereign has additional oil and gas leasehold interests on Additional Well sites in Broomfield, which well pads have previously been approved. Sovereign has requested that specified Additional Well Sites and associated new wells be subject to the draft Agreement. Two of the Additional Well Sites received Use by Special Review approval from the City, on the Webber H Unit I Pad as approved by the City per Resolution No. 2013-22, and the Hulstrom G Unit I Pad as approved by the City per Resolution No. 2013-23. The Additional Well Sites are depicted on the map below. Notice had been given to the property owners surrounding the Additional Well Sites of City Council’s consideration of the Agreement.

## Additional Well Sites Requested by Operator



M:\GIS\Map\_Production\Project\_Maps\Broomfield\City\_Atorney\Oil\_Wells\Sovereign\_Existing\_Leasehold\Additional Well Sites Requested by Operator.mxd

Date: 8/1/2013

0 1,000 2,000 4,000 6,000 8,000  
Feet

The ten well sites, which include the Proposed Wells and the Additional Well Sites (collectively referred to as the "Well Sites") that would be governed by the proposed Agreement are depicted below.

### All Well Sites Proposed under Draft Agreement



The proposed draft Agreement with Sovereign that is Exhibit A to proposed Resolution 2013-135 contains many Best Management Practices (BMPs) that have been recommended to staff by technical experts and would apply to all the new and refiled wells drilled at the Well Sites in the next five years. Staff focused its efforts in this agreement on those areas where there may be gaps in current state regulations and in those areas most important to City Council and most frequently commented on by citizens who participated in the Town Hall Meeting. Those areas of concern are air quality, water quality, emergency planning, chemical disclosure, and inspections.

These BMPs go well beyond Broomfield's current code requirements in an effort to put in place the highest possible public safety standards for oil and gas drilling on these Well Sites. These BMPs also exceed current state regulatory requirements in areas such as air quality, water quality, inspections, and emergency management planning.

There are at least thirty-five requirements in the draft Agreement that exceed current state regulations in the following areas. Many of these requirements are discussed in greater detail later in this memorandum.

- Operator to submit 10 year Comprehensive Development Plan
- Operator is obligated to defend and indemnify the City from claims relating to or arising out of the well sites
- Operator shall provide notice to all owners within 2,640 feet of applications for drilling operations
- Operator shall inspect berms and containment devices at each site on a daily basis
- Operator shall employ closed looped drilling in every circumstance- (Wells drilled, completed and operated using closed loop pitless systems for containment and recycling of drilling, flowback and produced fluids.)
- Operator shall anchor all well site equipment
- Operator shall disclose chemicals to City before brought on site
- Operator shall ensure no visible dust emissions from access roads to extent practical and avoid dust suppression within 300 feet of water
- Operator shall submit safety data sheets for dust suppressants used by operator on roads
- Operator has a duty to minimize emissions from operations including consolidation of facilities, monitoring systems, and gathering and water delivery systems
- Operator shall capture all vapors and route to a control device with at least a 98% vapor capture efficiency and operate such equipment in accordance with manufacturer specifications.
- Operator shall employ technology to control emissions from well blowdowns on new wells. (Over time, liquids build up in the well and reduce and eventually eliminate the production of gas so operators need to clear the liquids out of the well to maintain production. A blowdown occurs when the operator opens the top of the well casing and lets the gas vent to the atmosphere and the liquids blow out of the well. This leads to emissions during well maintenance. If an operator is onsite, the duration of the blowdown can be shortened since the operator can monitor the progress and close the well as soon as the liquids are out of the well. If the operator is not onsite, extra venting will occur. A plunger lift is a device that allows the operator to clear the liquids from the well without opening it to the atmosphere so the venting of gas and the associated emissions do not occur. A plunger installed in the well is used to lift the fluids out of the well so that the liquids can be cleaned out with little or no venting.)
- Operator shall be present onsite during all manual blowdowns.

- Operator shall employ no bleed pneumatic controllers- (Controllers are equipment used to regulate gas flow and pressure; no bleed pneumatic controllers are a type that do not bleed natural gas into the atmosphere by design.)
- If flaring of gas is allowed under state regulation, flare shall be designed so no visible emissions; Operator shall employ an automatic pilot to ensure flare is operating
- Operator to develop Leak Detection and Repair Plan that requires quarterly inspections of all components on well sites and prompt repair of leaking components, with reporting to City. (Reduce leaks by requiring a Leak Detection and Repair Plan (LDAR) to detect and repair leaking pumps, flanges, seals, connectors, *etc.*, at well sites.)
- Operator to fund ambient air sampling
- Operator to respond to air quality action days and emission reduction where feasible
- Operator to certify annually that it is in compliance with all air quality provisions of the Agreement
- Operator shall allow access for inspections
- Operator shall utilize green completions for all wells, consistent with future federal rules. (Green completions require gas to be captured at the well head during and immediately after well completion instead of releasing it into the atmosphere or flaring it.)
- Operator to perform water quality monitoring under COGCC Rule 609, which otherwise does not apply in the City. ( Rule 609 requires initial baseline samples and subsequent monitoring samples from all available water sources up to a maximum of four within ½ mile of the proposed well, with testing to be conducted between six and 12 months and between 60 and 72 months of completion of well.)
- Operator to comply with more stringent requirements for flammable material
- Operator to comply with floodplain requirements under municipal code
- Operator to implement landscaping requirements consistent with a City approved plan
- Operator to implement lighting plan that goes beyond state rules
- Operator shall not engage in routine maintenance of machinery within 300 feet of a water body
- Operator will ensure flowlines are at least 50 feet away from buildings if feasible
- Operator shall record all flowlines and submit to City
- Operator shall remove equipment within 30 days from completion
- Operator shall fund soil gas monitoring
- Operator shall not discharge fluids at well site
- Operator shall not use produced and flowback water for dust suppression
- Operator shall disclose to the City water sources used by the Operator and water disposal methods
- Operator shall provide information to the City regarding plugged and abandoned wells
- Operator to identify City as additional insured on policy; insurance policy limits increased above State minimum
- Operator shall participate in Natural Gas STAR program to encourage innovation in pollution controls at drill sites

### **Air Quality Requirements**

Sources of emissions from an oil and gas well site include equipment and processes used in drilling, completion, and production activities that are primarily located at or near well sites in active oil and gas fields. Emissions can result from a variety of operational elements (e.g., volatile organic compounds (VOCs) that escape from the wellhead and associated equipment during the drilling and production operations, large stationary power generators, increased truck traffic, etc.); these emissions can negatively impact air quality. The types of emissions include smog-forming VOCs and oxides of nitrogen, diesel particulates, silica dust, benzene, methane, and carbon dioxide.

COGCC requires green completions for all oil and gas wells except low pressure wells, exploratory wells, wells not near a sales line, or where green completion practices are not otherwise technically and economically feasible. Colorado Air Quality Control Commission (AQCC) and/or COGCC rules require that control emissions from certain oil and gas equipment, i.e., certain condensate tanks, glycol dehydrators, pneumatic controllers, and certain engines be controlled. The required controls vary depending on the size, type and location of equipment. For example, vapors from condensate tank batteries with actual emission in excess of 20 tons per year require that emissions be controlled by 95%. These rules allow for the use of devices to capture and return vapor to the process stream or route the vapors to a combustion device. Certain other types of equipment are subject to other controls, such as certain glycol dehydrators, which are subject to a 90% control requirement. Smaller tanks may not be subject to any controls.

The CDPHE is currently engaged in a process that could lead to a modification of the state air quality control regulations for oil and gas operations. A rulemaking may occur in the fall of this year or early in 2014, which rules could provide for additional controls at oil and gas facilities in the state. Under the Clean Air Act, the Environmental Protection Agency (EPA) has the authority to regulate emissions from oil and gas activities. The EPA enacted rules in 2012 which apply to new sources, some of which took effect last year while others take effect on a delayed implementation timeframe. Part of the recent federal rules is also being further evaluated and could be modified. Currently, federal rules require operators to combust emissions during the completion of all hydraulically fractured gas wells and reduce leaks from seals used on certain compressors, with certain exceptions. Beginning in January 2015, operators will need to capture, rather than combust, completion emissions from most gas wells. As of October of this year, operators also must install low-bleed pneumatic controllers, but this requirement already applies under state law to operators in the City. It is anticipated that the EPA will finalize additional requirements for storage vessels later this summer.

The draft Agreement contains air quality requirements that address emissions from drilling operations, leaks from equipment, and periodic air quality testing at the well sites. Examples of where air quality requirements in the draft Agreement exceed State regulatory requirements are summarized in the chart below.

<b>Air Quality - State Requirement (COGCC OR AQCC)</b>	<b>Proposed Broomfield Requirement</b>
No requirement on use of electric equipment to minimize emissions at well sites	Operator to take all reasonable efforts to use electric powered engines for motors, compressors, and drilling and production equipment, but if not economically feasible or practical may use propane or natural gas, but not diesel.
Minimize dust emissions on roads; no use of flowback water for dust suppression	Minimize dust emissions so there are no visible dust emissions from access roads or site to the extent practical given wind conditions; no untreated or produced water or other fluids may be used in dust suppression; operator to avoid dust suppression activities within 300 feet of high water mark of waterbody; operator to submit safety data sheet for chemical based dust suppressant prior to use

<p>No duty to submit plan for approval that requires operator to minimize emissions</p>	<p>General duty to minimize emissions through the development of a plan approved by the city concerning operations, procedures, and field design features including: consolidation of product treatment and storage facilities; centralization of compression facilities; liquid gathering and water delivery systems; and telemetric control and monitoring systems.</p>
<p>Capture vapors from condensate tanks route to device with 95% control or destruction efficiency; certain glycol dehydrators required to control emissions by 90%</p>	<p>Capture and route all vapor to device with at least a 98% control or destruction efficiency and operate such equipment in accordance with manufacturer specifications.</p>
<p>No requirement to use plunger lifts; no requirement to be onsite for manual blowdowns</p>	<p>Requirement to use plunger lift or other similar technology to control emissions from the motor control valves; for manual blowdowns, requires operator to be onsite</p>
<p>Operator to install low or no - bleed pneumatic controllers where pneumatic controls in use at drill sites</p>	<p>Operator to employ only no-bleed pneumatic controllers (pneumatic controllers are equipment used to regulate gas flow and pressure; no bleed are a type that does not bleed natural gas into the atmosphere by design)</p>
<p>Venting is allowed if notice given to COGCC, but COGCC could require flaring in some cases</p>	<p>No venting of gas is allowed</p>
<p>No specific requirement for flares, but CDPHE permit could require controls on some flares in some cases</p>	<p>Where flaring is allowed, it must be conducted so flare unit operates at 98% or higher vapor destruction efficiency; flare unit to be operated so no visible emissions consistent with federal regulations; flare unit to be operated with flame present at all times when emissions to be vented; automatic pilot and continuous ignition system required</p>
<p>No requirement for Leak Detection and Repair Plan, except in limited circumstances, and in those cases, requirements for program are limited to liquid leaks, are not well defined or subject to approval</p>	<p>Leak Detection and Repair Program requires sampling on quarterly basis; operator to submit plan to be approved by City</p>
<p>No requirement for Air Sampling Program</p>	<p>Air Sampling Program funded, in part, by Operator, including baseline sampling prior to drilling, sampling during drilling and ongoing monitoring;</p>
<p>CDPHE issues recommendations on air quality action days, not binding on operators i.e. tanks above certain size in non-attainment area</p>	<p>Annual certification by operator of compliance with air quality requirements of the Agreement.</p>

<p>Green Completions required for gas to be captured at the well head during and immediately after well completion instead of releasing it into the atmosphere or flaring it, but may be exceptions</p>	<p>Green completions required and venting is prohibited; temporary flowback flaring and oxidizing equipment is required; operator to comply with more stringent federal requirements now, even though those rules are not effective until 2015</p>
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**Water Quality Issues**

During the drilling/development phase, water is required by oil and gas operators for dust control, making concrete, and in the stimulation of wells. For well sites in Broomfield, water is trucked in from off-site or transported through temporary pipelines, but none of the water used is sold or provided to operators from Broomfield. A well must be completed properly such that subsurface formations are sealed off by the well casing and cement to avoid impact to aquifers.

Soils compacted on existing roads, new access roads, and well pads may generate more stormwater runoff than undisturbed sites. The increased stormwater runoff could lead to higher peak storm flows into streams, potentially increasing erosion of the channel banks.

Primary waste during production is produced water, which can comprise 98% of material brought to the surface during the drilling operations. Such water can be disposed of or recycled by operators.

COGCC regulates most aspects of underground drilling operations, including well bore construction requirements, to protect surface and groundwater during drilling and operations and soil gas monitoring to assess well casing integrity. Water quality testing and monitoring is governed by different COGCC rules for the Greater Wattenberg Area (GWA) than the remainder of the State. The northeast part of Broomfield is situated in the GWA. The GWA has been called Colorado’s most productive oil and gas field and currently is under intense development. COGCC Rule 609 is the most stringent rule on water quality monitoring and requires initial baseline samples and subsequent monitoring samples from all available water sources up to a maximum of four within ½ mile of the proposed well, with testing to be conducted between six and 12 months and between 60 and 72 months of completion of well. Rule 609 does not apply in the GWA. Instead, the COGCC requires only one test well and it need only be tested once and suite of chemicals to be tested for is narrower than the suite under Rule 609. The draft MOU requires Rule 609 be applied to these sites.

<b>State Water Quality Requirements</b>	<b>Proposed Broomfield Water Quality Requirements</b>
<p>Compliance with COGCC Rule 318 which requires fewer water sources to be tested and less frequent testing</p>	<p>Compliance with COGCC Rule 609 is required with initial baseline samples and subsequent monitoring samples from all available water sources up to a maximum of four within ½ mile of the proposed well, with testing to be conducted between six and 12 months and between 60 and 72 months of completion of well.</p>
<p>No soil gas monitoring requirement</p>	<p>Provides for soil gas monitoring funded, in part, by the operator</p>

## **Inspections**

City personnel have the right to enter upon private property after reasonable notification to the operator, which provides the operator an opportunity to be present. The City may use the information collected on the inspections to enforce the requirements of the regulations or the MOU. The City may also report this information to appropriate state officials, including, but not limited to, information regarding violations of State rules. There are many technical reporting requirements and field inspections that are inherent with the Agreement and the proposed regulations. It is anticipated that the City will work with other Front Range communities, if timing permits, to hire an inspector for these purposes or the City may hire its own inspector.

## **Other Agreement Requirements**

Other notable requirements of the operator under the Agreement include:

- While current COGCC setback requirements from an occupied building are 1,000 feet and from a building unit are 500 feet, unless certain additional measures are implemented for wells closer to the building, all of the well sites covered by this agreement exceed that requirement. The Agreement requires that all new wells drilled on the 10 well sites covered by the agreement are at least 1,000 feet from high occupancy buildings or building units, as defined by the COGCC, that exist on the effective date of the agreement, with a 10% administrative variance available. The agreement does not permit wells within that distance, even if mitigation measures by the COGCC rules are employed.
- The operator has to provide a 10-year plan for proposed drilling operations in Broomfield and the City may comment on that plan, including the location of new well pads.
- The operator must provide a bond to cover potential public road damage from operator's use.
- The operator must identify the source of all water used in drilling operations, the number of vehicles, and the disposal method.
- The operator must have landscaping and fencing plans approved by the city and face all lighting at well sites downward and shielded.
- Appendix B to the Agreement includes a comprehensive list of plans that are subject to City approval.
- All of the BMPs set forth in the Agreement are to be made a part of the COGCC permits for new or refilled wells at the Well Sites, so that the City can pursue enforceability through the COGCC as well as its own inspectors.
- In certain sections of the Agreement, requirements are conditioned upon the action being technically or commercially feasible by the operator. It is anticipated that City staff will consult with an expert in making these determinations.
- Operator shall be subject to future City Ordinances that have general applicability to oil and gas operators, including but not limited to future rules on impact fees.
- The term of the agreement is for five years and would cover all new wells drilled within that time frame. The Agreement can be renewed by mutual written agreement. The Agreement can be terminated early for any well for which a material breach occurs after notice and opportunity to cure.
- For all new wells at any of the proposed 10 well pads for which a Use by Special Review Permit had not been previously granted by the City, the Operator will be required to give notice to all owners within ½ mile of the site of the new well and conduct a neighborhood meeting, with comments from the neighborhood meeting that may be provided to COGCC. In addition, notice will be given of the public hearing regarding this agreement to owners in the vicinity of the six well pads proposed to be added to this agreement by the operator.

## VII. APPLICABLE MUNICIPAL CODE STANDARDS FOR PROPOSED WELLS

The City Council reviews the use by special review application based on the following provisions of the Broomfield Municipal Code:

### USES PERMITTED BY SPECIAL REVIEW

#### **17-30-010 Approval required.**

Uses permitted by special review may be allowed in the designated districts upon approval by the city council following recommendations by the planning and zoning commission. (Ord. 149 Art. 17 (part), 1973; Ord. 1111 §19, 1995; Ord. 1935 §31, 2011)

#### **17-30-020 Request; submittal when.**

All requests for a use permitted by special review shall be submitted in writing to the secretary of the planning and zoning commission meeting and shall include an application fee of \$500.00. (Ord. 149 Art. 17 §1(1), 1973; Ord. 1111 §20, 1995; Ord. 1692 §1, 2002; Ord. 1935 §32, 2011)

#### **17-30-030 Application; contents.**

(A) The application shall contain a site plan showing, when applicable, the location of the building, off-street parking areas, off-street loading areas, service and refuse areas, ingress and egress to the property; major landscaping or other screening proposals, signs, pedestrian areas, a time schedule for development, and any other items which may help the planning and zoning commission to make a reasonable recommendation.

(B) The application for uses permitted by special review for oil or gas wells or for injection wells shall follow the application requirements set forth in chapter 17-54.

(C) The application for uses permitted by special review for wireless communications towers shall follow the application requirements set forth in chapter 17-35, B.M.C. (Ord. 149 Art. 17 §1(2), 1973; Ord. 750 §4, 1987; Ord. 967 §2, 1993; Ord. 1026 §3, 1994; Ord. 1111 §21, 1995; Ord. 1194 §8, 1996; Ord. 1514 §9, 2000; Ord. 1935 §33, 2011)

#### **17-30-040 Request; review.**

The planning and zoning commission shall hold a public hearing on the request. Notice shall be given in accordance with the provisions of chapter 17-52.

(A) Except for oil and gas wells or injection wells, factors to be considered are the relation of the requested uses to the character of the surrounding neighborhood, the desirability and need for such a use in the specific area of the community, adverse environmental influence that might result from its location, and, in general, compliance with the intent of this title.

(B) For oil and gas wells or injection wells, the review criteria shall be the factors set forth in section 17-54-080. (Ord. 516 §6, 1983; Ord. 967 §3, 1993; Ord. 1111 §22, 1995; Ord. 1935 §34, 2011)

#### **17-30-050 Request; recommendation; conditions.**

After completing its review of a special review request, the planning and zoning commission shall submit its written report and recommendation to the city council. The recommendation shall either be a recommendation to approve, to approve with conditions, or to deny the request. If the recommendation is to approve with conditions, the recommendation shall set forth the conditions and those requirements as deemed necessary to protect the health, safety, and welfare of the community. (Ord. 149 Art. 17 §1(4), 1973; Ord. 1147 §2, 1995; Ord. 1935 §35, 2011)

#### **17-30-060 Request; approval, conditional approval; denial.**

The city council shall consider the request and the planning and zoning commission's recommendation and shall make a final decision of approval, or approval with conditions, or of denial. Factors to be considered are those specified in section 17-30-040. The city council shall hold a public hearing prior to making its final decision. Notice shall be given in accordance with chapter 17-52. (Ord. 516 §7, 1983; Ord. 1111 §23, 1995; Ord. 1935 §36, 2011)

#### **17-30-070 Decision to be stated in official minutes.**

Any decision of the planning and zoning commission or city council on special reviews shall state in the official minutes the reasons for such decision. (Ord. 149 Art. 17 §1(6), 1973; Ord. 1111 §24, 1995; Ord. 1935 §37, 2011)

#### **17-30-090 Approval; period; void when.**

All special review requests approved by city council prior to January 1, 1988, shall be valid for one year from the approval date. All special review requests approved by city council after January 1, 1988, shall be valid for three years from the approval date. If the approved use is in operation by the end of the specified period, the approval shall remain valid so long as the use continues. If the approved use is not in operation at the end of the specified period, or if it thereafter ceases, the approval shall be deemed void and of no further force and effect, and no building or other construction permits shall be issued until and unless the special review request is reapproved by the city council. (Ord. 750 §6, 1987)

#### **17-30-100 Special considerations.**

The following additional requirements or considerations for uses permitted by special review shall be met as described in this section. Conditions in addition to those set forth below may also be applied by the city council:

(A) Churches in the E-2 district, provided that the minimum area of the lot is at least three times the total floor area of the church building.

(B) Child day care facilities; provided that:

(1) For child day care facilities providing care for five through twelve children: a) at least fifty square feet per child of usable indoor floor area; and b) at least 200 square feet per child or 1,500 square feet of outdoor fenced play area is provided, whichever is greater.

(2) For child day care facilities providing care for thirteen or more children: a) a minimum of thirty square feet per child or 600 square feet of usable indoor floor area, whichever is greater, and a minimum of fifty square feet of usable indoor floor area per child for nursery care; and b) a minimum of seventy-five square feet per child or 2,400 square feet of outdoor fenced play area, whichever is greater.

(3) The child day care facilities are properly licensed by the Colorado State Department of Social Services, as required by statute.

(C) Noncommercial recreational uses, including swimming pools, community buildings, tennis courts, and similar uses as a principal use in the E-1, E-2, R-1, R-3, and R-5 districts; provided that lighting of outside areas is controlled and that all buildings and active play areas are located at least 225 feet from all lot lines.

(D) Planned unit developments if the requirements, procedures, and approvals of chapter 17-38 are met.

(E) Colleges and universities in the R-5 district; provided that the total area is at least forty acres and that buildings are located at least one hundred feet from all lot lines.

(F) Mobile home communities in the R-1, R-3, and R-5 districts; provided that each mobile home community complies with the requirements of chapter 17-42.

(G) All gas stations, outdoor recreational uses, outdoor restaurants, and other outdoor eating and drinking places in the B-1 and B-2 districts, provided that:

(1) Access locations are approved by the city engineer;

(2) Lights and signs are controlled to protect adjacent residential areas;

(3) Landscaping or solid fencing capable of screening the adjacent property is provided whenever such uses abut residential zoning district lines.

(H) Undertaking establishments in the B-1 district; provided that special provisions are made for off-street parking and for screening from any adjoining residential zoning district.

(I) Warehouse, distribution, and wholesale uses in the I-1 district; provided that truck traffic serving such uses would not be detrimental or hazardous to other existing or future limited industrial uses in the same zoning district or to uses in other adjoining zoning districts. (Ord. 149 Art. 17 §2, 1973; Ord. 257 Art. 1 §5, 1975)

## OIL AND GAS LAND USE REGULATIONS

### 17-54-005 Short title.

This chapter is known and may be cited as the "Broomfield Oil and Gas Regulations." (Ord. 967 §1, 1993)

### 17-54-010 Purpose.

This chapter is enacted to protect and promote the health, safety, morals, convenience, order, prosperity, or general welfare of the present and future residents of the city. It is the intent of the city council by enacting these regulations to facilitate the development of oil and gas resources within the city while mitigating potential land use conflicts between such development and existing, as well as planned, land uses. It is recognized that under state law 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 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 rights. The state has a recognized interest in fostering the efficient development, production, and utilization of oil and gas resources, and particularly in the prevention of waste and protection of the correlative rights of common source owners and producers to a fair and equitable share of production profits. 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. Municipal governments have a recognized, traditional authority and responsibility to regulate land use within their jurisdiction. These regulations are intended to be an exercise of the land use authority of the city. Nothing in this chapter shall be construed as giving the city authority to enforce state or federal laws, rules, or regulations. (Ord. 967 §1, 1993)

### 17-54-020 Definitions.

All terms used in this chapter that are defined in the Act or in Commission regulations and are not otherwise defined in this section, are defined as provided in the Act or in such regulations as of the effective date of this chapter. All other words used in this chapter 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 this chapter have the following meanings:

(A) *Act* means the Oil and Conservation Act of the State of Colorado.

(B) *Commission* or *OGCC* means the Oil and Gas Conservation Commission of the State of Colorado.

(C) *Day* means a period of twenty-four consecutive hours.

(D) *Director* means the director of the Oil and Gas Conservation Commission of the State of Colorado.

(E) *Injection well* means 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.

(F) *Inspector* means any person designated by the chief building official, or designee thereof, who shall have the authority to inspect a well site to determine compliance with this chapter and other applicable ordinances of the city.

(G) *Oil and gas well* means any hole drilled into the earth for the purpose of exploring for or extracting oil, gas, or other hydrocarbon substances.

(H) *Operating plan* means a general description of a facility identifying purpose, use, typical staffing pattern, seasonal or periodic considerations, routine hours of operating, source of services, infrastructure, and any other information related to regular functioning of such facility.

- (I) *Operator* means the person designated by the working interest owners as operator and named in Commission Form 2 or a subsequently filed Commission Form 10.
- (J) *Owner* means any person with a working interest ownership in the oil and gas or leasehold interest therein.
- (K) *Production site* means the area surrounding proposed or existing production pits or other accessory equipment required for oil and gas production, at which may also be located tanks and tank batteries, exclusive of transmission and gathering pipelines.
- (L) *Reentering* means accessing an existing well bore for either the original or amended purpose, provided that such well has not been abandoned.
- (M) *Sidetracking* means entering the same well head from the surface, but not necessarily following the same well bore, throughout its subsurface extent when deviation from such well bore is necessary to reach the objective depth because of an engineering problem.
- (N) *Twinning* means the drilling of a well within a radius of fifty feet from an existing well bore when the well cannot be drilled to the objective depth or produced because of an engineering problem, such as a collapsed casing or formation damage.
- (O) *Use tax* means the tax paid by a consumer for using, storing, distributing, or otherwise consuming tangible personal property or taxable services inside the city.
- (P) *Well* means an oil and gas well or an injection well.
- (Q) *Well head* means the equipment attaching the surface equipment to wellbore equipment at the well.
- (R) *Well site* means that area surrounding a proposed or existing well or wells and accessory structures and equipment necessary for drilling, completion, recompletion, workover, development, and production activities. (Ord. 967 §1, 1993)

#### **17-54-030 Inspections.**

In recognition of the potential impacts associated with oil and gas drilling and well operation in an urban setting, all wells and accessory equipment and structures may be inspected by the inspectors of the city at reasonable times to determine compliance with applicable provisions of this chapter, the International Fire Code, the International Building Code, and all other applicable standards in this title. For the purpose of implementing and enforcing the provisions of this chapter, the city personnel have the right to enter upon private property after reasonable notification to the operator, which provides the operator an opportunity to be present. (Ord. 967 §1, 1993; Ord. 1858 §16, 2008)

#### **17-54-040 Use permitted by special review.**

Within all zoning districts, including a PUD planned unit development district, when an applicant wishes to drill a well that has not been previously permitted under this chapter, it is unlawful for any person to perform any such operation, unless a use permitted by special review has first been approved by the city council as provided in this chapter. When a use permitted by special review has been approved for a well, the twinning, sidetracking, or reentering of such well for the purposes of deepening, recompleting, or reworking shall not require a subsequent approval under this chapter. The approval of such use by special review does not relieve the operator from otherwise complying with all applicable regulatory requirements of the city, state, and federal governments. (Ord. 967 §1, 1993)

#### **17-54-050 Application requirements; site plans.**

The site plans for a well site submitted with an application for a use permitted by special review shall be submitted on one or more plats or maps, at a scale not less than 1" = 50', showing the following information:

- (A) The proposed location of well site facilities associated with the well in the event production is established, if applicable. Future development of the resource shall be considered in the location of the tank battery. Existing tank batteries and transmission and gathering pipe lines within 660 feet of the well site shall be shown.
- (B) The location of layout, including, without limitation, the position of the drilling equipment and related facilities and structures, if applicable.
- (C) True north arrow.
- (D) Existing improvements, if any.
- (E) Existing utility easements and other rights-of-way of record, if any.
- (F) Existing irrigation or drainage ditches within 400 feet of the well site, if any.
- (G) Drainage and erosion control plans for the well site and the area immediately adjacent to the well site, if applicable.
- (H) Location of access roads.
- (I) Well site and existing lease boundaries.
- (J) The names of abutting subdivisions or the names of owners of abutting, unplatted property within 400 feet of the well site or production site.
- (K) The name and address of the operator and the signature and seal of a professional land surveyor. (Ord. 967 §1, 1993; Ord. 1026 §2, 1994)

#### **17-54-060 Application requirements; vicinity maps.**

The vicinity maps for a well site submitted with an application for a use permitted by special review shall be submitted on one or more plats or maps showing the following information:

- (A) Location of all existing water bodies and watercourses, including direction of water flow. This information shall be submitted on USGS 7.5 minute series or assessor base maps which indicate topographic detail and show all existing water bodies and watercourses with a physically defined channel within a 400-foot radius of the proposed well.
- (B) Location of existing oil and gas wells or injection wells as reflected in OGCC records. This information shall be submitted on a map and shall include any and all wells within a 1,000-foot radius of the proposed location for the well.
- (C) Location of drill site. The information to be submitted shall be on Commission Form 2 and shall include the parcel tax identification number. (Ord. 967 §1, 1993)

**17-54-070 Application requirements; narrative.**

In addition to the site plans and the vicinity maps required in sections 17-54-050 and 17-54-060 above, the application shall also include the following:

- (A) The operator's and surface owner's names and addresses, OGCC Form 2, and designation of agent, if applicable.
- (B) An operating plan.
- (C) A list of all permits or approvals obtained or to be obtained from local, state, or federal agencies other than OGCC.
- (D) An emergency response plan that is mutually acceptable to the operator and the appropriate fire district that includes but is not limited to 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.
- (E) A plan for weed control at the well site.
- (F) A fire protection plan that is mutually acceptable to the operator and the appropriate fire district that includes planned actions for possible emergency events and other pertinent information. Prior to application to the city, a proposed fire protection and emergency response plan shall be submitted to and reviewed by the fire district.
- (G) To the extent it can be determined at the time of application and to the extent applicable, sources of water to be used in drilling operations of a proposed well.
- (H) Sanitary facilities must comply with section 602(g) of the OGCC regulation. (Ord. 967 §1, 1993)

**17-54-080 Review criteria.**

The city council shall approve an application for a use permitted by special review for a well site if the application submitted by the applicant conforms to the following requirements:

- (A) The site plans for a well site application comply with the requirements of section 17-54-050.
- (B) The vicinity maps for a well site application comply with the requirements of section 17-54-060.
- (C) The narrative for a well site application complies with the requirements of section 17-54-070.
- (D) The well location and setbacks comply with section 17-43-110.
- (E) When applicable, compliance with the provisions for special mitigation of noise required in section 17-54-140.
- (F) When applicable, compliance with the provisions for visual special mitigation required in section 17-54-160.
- (G) When applicable, compliance with the provisions for geologic hazards, flood plains, or floodway required in section 17-54-210.
- (H) When applicable, compliance with the provisions for wildlife mitigation procedures required in section 17-54-230. (Ord. 967 §1, 1993)

**17-54-090 Notice to proceed.**

Prior to commencement of operations for which a use permitted by special review has been approved, a "notice to proceed" shall be obtained from the city engineering department. The following documentation must be submitted and approved prior to the issuance of the notice to proceed:

- (A) A copy of the city council resolution approving a use permitted by special review for a well or wells.
- (B) A copy of the approved site plan.
- (C) Copies of any necessary state or federal permits issued for the operation, if not previously submitted. (Ord. 967 §1, 1993)

17-54-100 Building permits required.

Building permits must be obtained for all structures to which the International Fire Code and International Building Code apply. (Ord. 967 §1, 1993; Ord. 1858 §17, 2008)

**17-54-110 Well location and setbacks.**

In all areas of the city, the following apply:

- (A) A well site shall be setback not less than 350 feet from any occupied building or occupied building permitted for construction and shall be setback not less than seventy-five feet from any public right-of-way.
- (B) Production sites shall be setback not less than 350 feet from any occupied building or occupied building permitted for construction and shall be setback not less than seventy-five feet from any public right-of-way. (Ord. 967 §1, 1993)

**17-54-120 Compliance with state environmental requirements.**

The approval of an oil and gas permit shall not relieve the operator from complying with all current applicable state and federal regulations and standards concerning air quality, water quality, and waste disposal. (Ord. 967 §1, 1993)

**17-54-130 Noise regulation and special mitigation measures.**

Any equipment used in the drilling, completion, or production of a well shall comply with section 25-12-103, C.R.S. (Maximum Permissible Noise Levels). Any operation involving the use of a drilling rig, workover rig, cementing or fracing equipment, is subject to the maximum permissible noise levels in section 25-12-103(5), C.R.S. All other operations shall comply with the maximum permissible noise levels established by statute, if any, for the particular land use existing in the zone in which the operation occurs; provided that the city shall grant relief from these noise level requirements to the extent granted by the Commission. To the extent practicable, exhaust from all engines, motors, coolers, and other mechanized equipment shall be vented in a direction away from occupied buildings. (Ord. 967 §1, 1993)

**17-54-140 Special mitigation measures; noise.**

(A) Where a well and well site do not comply with the required setback or other requirements of this chapter or where the well and well site are in an area of particular noise sensitivity, additional noise mitigation may be required. An area of particular noise sensitivity includes but is not limited to the following: hospitals, dwelling units, nursing homes, hotels, churches, and designated wildlife preserves. In determining noise mitigation, specific site characteristics shall be considered, including but not limited to the following:

- (1) Nature and proximity of adjacent development, location, and type;
- (2) Prevailing weather patterns, including wind directions;
- (3) Vegetative cover on or adjacent to the site; or
- (4) Topography.

(B) Based upon the specific site characteristics set forth above, 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. One or more of the following additional noise abatement measures may be required:

- (1) Acoustically insulated housing or cover enclosing the motor or engine;
- (2) Noise management plan identifying hours of maximum noise emissions, type, frequency, and level of noise to be emitted, and proposed mitigation measures; or
- (3) Any abatement measures required by the Commission for high-density areas, if applicable. (Ord. 967 §1, 1993)

**17-54-150 Visual impacts and aesthetics.**

(A) To the maximum extent practicable, 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) To the maximum extent practicable, oil and gas facilities shall be located to avoid crossing hills and ridges or silhouetting.

(C) To the maximum extent practicable, the applicant shall use structures of minimal size to satisfy present and future functional requirements.

(D) To the maximum extent practicable, when clearing trees and vegetation for construction of oil and gas facilities, the applicant shall feather and thin edges of vegetation.

(E) To the maximum extent practicable, the applicant shall locate facilities at the base of slopes to provide a background of topography or natural cover.

(F) The applicant shall replace earth adjacent to water crossings at slopes less than the normal angle of repose with the soil type of the site.

(G) To the maximum extent practicable, the applicant shall align access roads to follow existing grades and minimize cuts and fills.

(H) Facilities shall be painted as follows:

- (1) Uniform, noncontrasting, nonreflective color tones.
- (2) Color matched to land, not sky, slightly darker than adjacent landscape.
- (3) Exposed concrete colored to match soil color. (Ord. 967 §1, 1993)

**17-54-160 Special mitigation measures; visual.**

Where a well or well site does not comply with the required setback or other requirements of this chapter, or in areas of increased visual sensitivity, such as a location near an occupied subdivision, the applicant shall submit a visual mitigation plan including one or more of the following standards, as appropriate:

(A) To the maximum extent practicable, exterior lighting shall be directed away from residential areas, or shielded from said areas to eliminate glare.

(B) One or more of the following landscaping practices may be required where practicable, on a site-specific basis:

- (1) Establishment and proper maintenance of ground covers, shrubs, trees;
- (2) Shaping cuts and fills to appear as natural forms;
- (3) Cutting rock areas to create irregular forms;
- (4) Designing the facility to utilize natural screens; or
- (5) Construction of fences for use with or instead of landscaping. (Ord. 967 §1, 1993)

**17-54-170 Abandonment and plugging of wells.**

The approval of a use permitted by special review shall not relieve the operator from complying with all Commission rules with respect to abandonment and plugging of wells. The operator shall provide the city with Commission Form 4 at the time that it is filed with the Commission. (Ord. 967 §1, 1993)

**17-54-180 Seismic operations.**

The approval of a use permitted by special review shall not relieve the operator from complying with all Commission rules with respect to seismic operations. All notices which an operator is required to file with the Commission with respect to seismic operations shall be filed with the city on a timely basis. The city shall comply with the same confidentiality requirements which bind the Commission. (Ord. 967 §1, 1993)

**17-54-190 Signs.**

The approval of an oil and gas permit shall not relieve the operator from complying with all Commission rules with respect to signs. In addition, the owner or operator shall maintain in good, readable condition all signs required by such Commission regulations. (Ord. 967 §1, 1993)

**17-54-200 Reclamation.**

The approval of an oil and gas permit shall not relieve the operator from complying with all Commission rules with respect to site reclamation. (Ord. 967 §1, 1993)

**17-54-210 Geologic hazard, flood plain, floodway restrictions.**

All equipment at drilling and production sites in geological hazard and floodplain areas shall be anchored to the extent necessary to resist flotation, collapse, lateral movement or subsidence and to the extent necessary to comply with the Federal Emergency Management Act. (Ord. 967 §1, 1993)

**17-54-220 Access roads.**

All private roads used to access the tank batteries and the well head shall be improved and maintained according to the following standards:

- (A) Access roads to tank batteries shall be subject to review by the city engineer in accordance with the following minimum standards:

(1) 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 ninety-five percent of the maximum density 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.

(2) 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) Maintained so as to provide a passable roadway reasonably free of ruts at all times.

(B) Access roads to the well head shall be subject to review by the city engineer in accordance with the following minimum standards:

(1) A graded roadway approved by the city engineer.

(2) Graded so as to provide drainage from the roadway surface and constructed to allow for cross drainage of waterways by means of an adequate culvert pipe. Adequacy of the pipe shall be subject to approval of the city engineer.

(3) Maintained so as to provide a passable roadway generally free of ruts.

(C) An extra-legal vehicle or load permit shall be required for all extra-legal vehicles or loads as defined in sections 42-4-401 through 411, C.R.S., which use city streets. Said permit, if required, shall be obtained from the city traffic engineer prior to such use. (Ord. 967 §1, 1993)

**17-54-230 Wildlife.**

The applicant shall not engage in activities which, in the opinion of the Division of Wildlife, threaten endangered species. (Ord. 967 §1, 1993)

**17-54-240 Conflicting provisions.**

In the event of a conflict between the provisions of this chapter and any other provision of this title, the provisions of this chapter shall control. (Ord. 967 §1, 1993)

**17-54-250 Emergency response costs.**

The operator shall reimburse the city or the fire district for any emergency response costs incurred by the city or the fire district in connection with activity at the well site or production site. (Ord. 967 §1, 1993; Ord. 990 §1, 1993)

**17-54-260 Unlawful to construct or install unapproved oil and gas facilities.**

Except as otherwise provided in this chapter, it is unlawful to construct, install, or cause to be constructed or installed, any oil and gas facility within the city unless approval has been granted by the city. The unlawful drilling or redrilling of any well or the production therefrom is a violation of this chapter. (Ord. 967 §1, 1993)

**17-54-270 Penalty.**

Any person who constructs, installs, or uses, or who causes to be constructed, installed, or used, any oil, gas, or injection well, production site, or well site in violation of any provision of this chapter or of the conditions and requirements of the oil and gas special use permit, may be punished as provided in chapter 1-12, B.M.C. Each day of such unlawful operation constitutes a separate violation. (Ord. 967 §1, 1993)

**17-54-280 Civil action.**

In case any building or structure is or is proposed to be erected, constructed, reconstructed, altered, or used, or any land is or is proposed to be used, in violation of any provision of this article or the conditions and requirements of the oil and gas special use permit, 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, alteration, or use. (Ord. 967 §1, 1993)

**17-54-290 False or inaccurate information.**

The city manager may revoke approval of a facility if it is determined after an administrative hearing, held on at least ten days' notice to the applicant, that the applicant provided information or documentation upon which approval was based, which the applicant, its agents, servants, and employees, knew, or reasonably should have known, was materially false, misleading, deceptive, or inaccurate. (Ord. 967 §1, 1993)

**17-54-300 Severability.**

If any provision of this chapter is found by a court of competent jurisdiction to be invalid, the remaining provisions of this chapter will remain valid, it being the intent of the city council that the provisions of this chapter are severable. (Ord. 967 §1, 1993)

**17-54-320 Prospective application.**

Unless specifically provided otherwise, this chapter shall apply only to wells which are drilled in the city on and after the date this chapter is adopted. The reentering of a well in existence prior to the date of adoption of this chapter, for purposes of deepening, recompleting or reworking, shall not require approval of a use permitted by special review as required by this chapter. (Ord. 967 §1, 1993)

**17-54-330 Application and well site fees.**

When an application is submitted to the city for a use permitted for special review under this chapter, the applicant shall pay to the city a \$200.00 oil and gas application fee and a well site fee of \$50.00 for each well site shown on the site plan. The oil and gas application fee and the well-site fee are in addition to any other fees charged by the city. (Ord. 1032 §1, 1994)