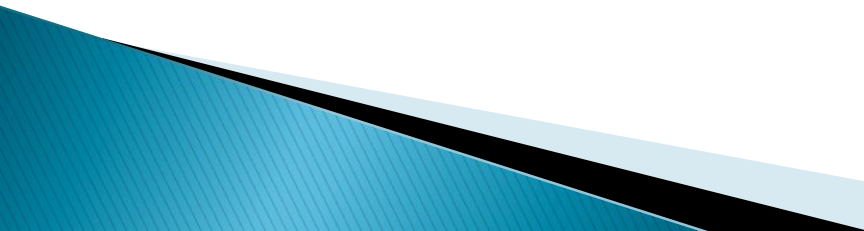


SANTA FE COUNTY'S OIL DEVELOPMENT ZONING ORDINANCE

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December 5, 2013

The Problem

- Existing oil field in Santa Fe County
 - 20 to 30 wells drilled in 1980s
 - 1 still in production in late 2000s
 - Proposal to drill “hundreds” possibly thousands of additional wells
 - Wells would be frac’ed
 - No regulatory ordinance in place
- 



Drilling: Tecton has leased 65,000 acres of mineral rights

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The audience members got more time to talk than before, three minutes as opposed to two. But the time limit was enforced more strictly, too. The microphone simply went dead when speakers reached their time limits.

County Attorney Steve Ross, who until now has been relatively silent, gave answers to 10 questions about the new regulations he said people ask most frequently, including:

Why does the new ordinance allow drilling companies to get variances on the setbacks?

Answer: Because easing the setbacks in some situations might protect the county from being accused of denying mineral owners access to their legal property and being held financially liable for the lost assets.

Why are the bonds required by the county so low?

Answer: Since the Sept. 11, 2001, terrorist attacks, surety bonds have been hard to get. The county will require \$5,000 to \$25,000 bonds on each well, but Ross said drilling companies will also be required to carry \$10 million worth of insurance on each well.

What will you do if the aquifer is contaminated?

Answer: "We will do a lot of things," Ross said, including working with the Oil Conservation Division to get it cleaned up, suing the drilling company, invoking the insurance, pulling the bonds and "making them shut down their wells until the problem is resolved."

Comments from the crowd, were passionate.

Alex Valenzuela, who said he used to live near oil fields in Linderoth, N.M., north of Cuba, spoke about watching his mother become ill when a well solvent leaked into her water. "My mom almost died," he said. "Her whole body was covered with sores, and her hair started falling out. I was really upset about that."



Kristin Thai of San Marcos looks at where her home is located in the proposed Tecton drilling area before Thursday's public meeting at Santa Fe High School. An estimated 800 people attended the latest hearing, the largest number to date.

The County Commission enacted a three-month moratorium on oil and gas drilling permits Nov. 27 so it would have time to finalize the new ordinance. The county is accepting public comments on the new regulations through Dec. 21. Two public hearing will be held before the new ordinance is adopted. The next is tentatively scheduled to take place Jan. 7.

Valenzuela said one of his neighbors pulled a gun on the drillers. "They arrested him and drilled a well on his property," he said.

Valenzuela even linked the oil drilling to higher crime rates and said he personally knew many "roughnecks" who

worked on the rigs and were strung out on crystal meth. "You'll have a bunch of speed-freak trailer trash moving into your place," he said.

Bill Gilbert, a father of three who has spent 29 years in the Galisteo Basin area, where the oil exploration company Tecton

Energy has said it wants to drill, told the policymakers: "We want you to feel you are more concerned with our community than you are with being sued."

Tecton's announcement that it has leased 65,000 acres of mineral rights in Santa Fe County prompted the county

to produce the new oil and gas drilling ordinance it is now considering.

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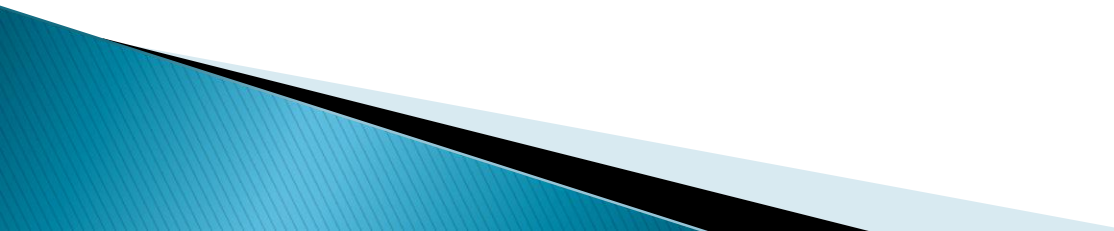
The next is tentatively scheduled to take place Jan. 7. Exact dates can be found on the county's Web site, www.santa-fe-county.org.

Contact Phaedra Hixwood at 986-3068 or phixwood@sfnewmexican.com.

Result

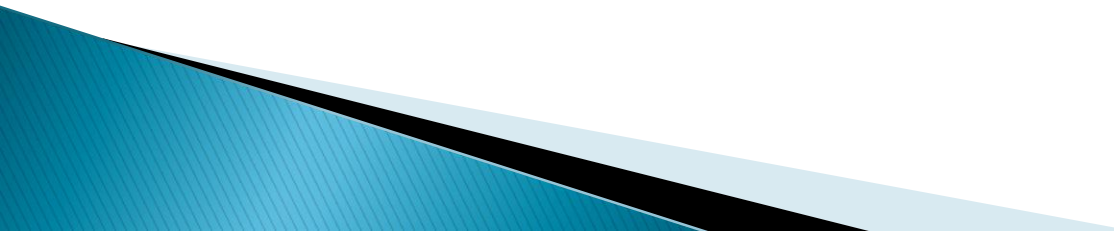
- General Plan Amendment
- Comprehensive Drilling and Exploration Ordinance, No. 2008-19
- *www.santafecounty.org/oilandgas/documents/OilGasElement093008.pdf*
- *www.santafecounty.oilandgas/documents/OILGASORDINANCE_NO2008-19.pdf*

Process

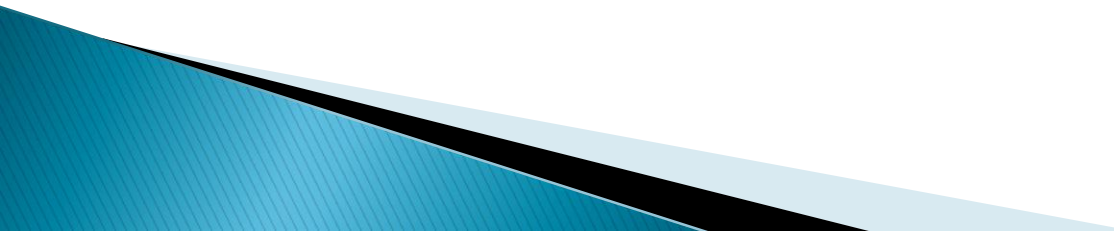
- County moratorium on oil and gas development pending development of general plan amendment and regulatory ordinance
 - State moratorium on APDs through Oil Conservation Division
 - State studies (OCD, NMED, Office of Cultural Affairs)
 - County studies
- 

Process

Development team:

- Land use lawyer
 - Land use planning firm from Kansas City
 - Oil and gas attorney
 - Petroleum engineer
 - Geologist
 - Hydrologist
 - County legal staff
- 

Process

- Multi-disciplinary approach
 - Legal issues and the authority of County government
 - Technical investigation of oil and gas resources
 - Particularized investigation of resources of the Galisteo Basin (cultural, archeological, water, traffic, emergency response, fiscal impacts)
 - Land suitability analysis
 - GPA
 - Ordinance
- 

The Santa Fe County Ordinance

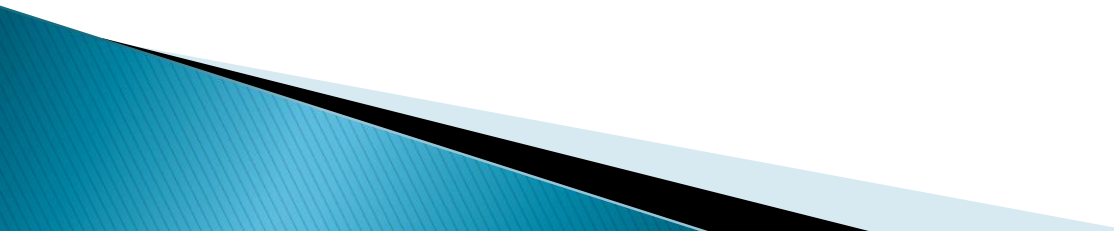
Both a zoning ordinance and a direct regulatory ordinance (police power)

Three step approval process:

1. Zoning (floating zone)
2. Permitting
3. Development permit, certificate of completion

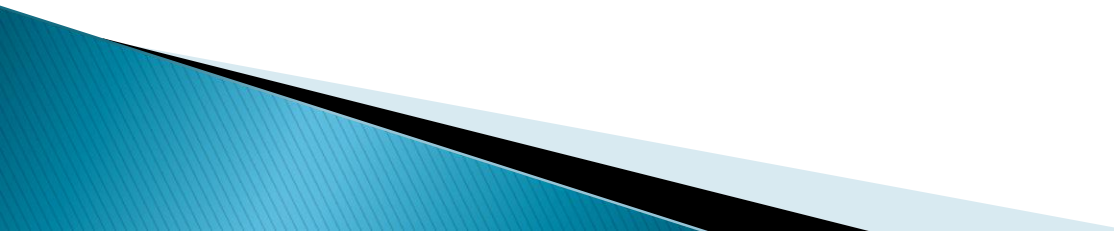
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Concerns about Frac'ing:

1. Contamination of groundwater
 2. Use of scarce water resources
 3. Traffic, road damage
 4. Escape of methane/climate change
 5. Pollution
 6. Health effects of proprietary chemicals
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Ordinance Approaches:

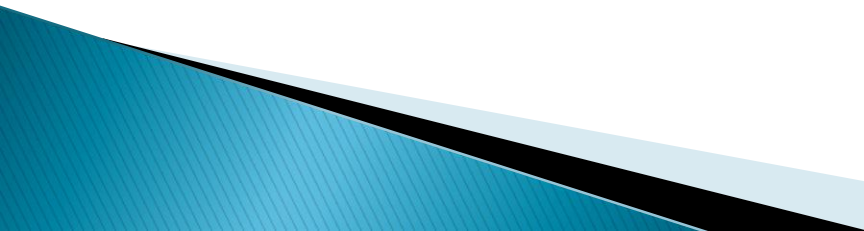
1. Protect groundwater
 2. Limit or control water use
 3. Control infrastructure use, require improvements
 4. Address leaks and spills
 5. Abate pollution
- 

The Santa Fe County Ordinance

Protecting Groundwater

11.21 Closed Loop Systems

As defined in Section 7, each site where there is a producing oil or gas well shall have a fluid-containment system using a series of enclosed above ground tanks. Only Closed Loop Systems that meet or exceed the requirements of NMAC 15.1.21, shall be used during the drilling or Completion of any Well. Open pits and reserve pits are prohibited under all circumstances.

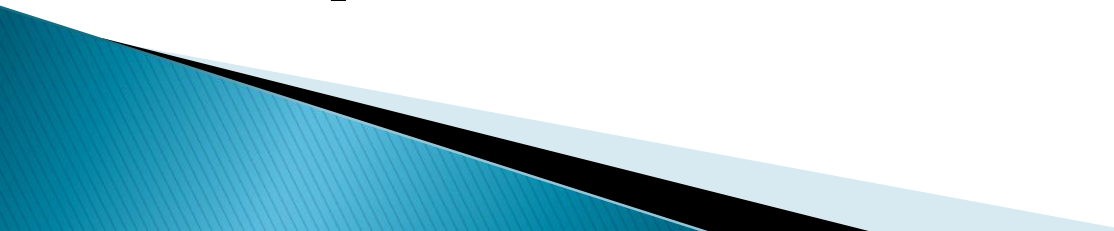


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Protecting Groundwater

11.20 Storage Tanks

Except as otherwise mandated by the OCD, tanks used for the storage of condensate, crude oil, or other liquid hydrocarbons produced by and/or used in conjunction with any Oil or Gas Facility shall conform to the American Petroleum Institute (A.P.I.) standards for such tanks. All storage tanks shall be equipped with a secondary containment system including lining with an impervious material in order to protect against leaks and spills. Each storage tank shall be equipped with a level-control device that will automatically activate a valve to close the well in the event of excess liquid accumulation in the tank.



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Protecting Groundwater

11.22 Water Quality Protection Program

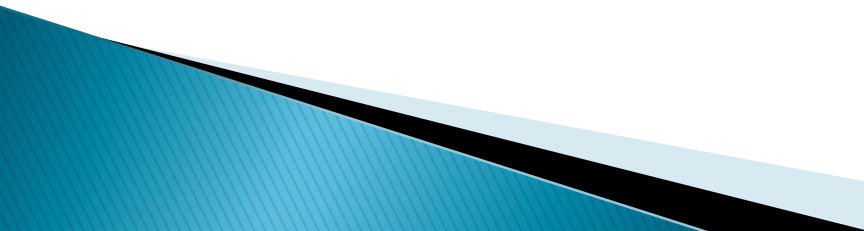
11.22.1 The Operator shall complete a **baseline water quality testing program** prior to constructing and Oil or Gas Facility. At least three monitoring wells shall be constructed according to guidelines prepared by the County Hydrologist. The location of the monitoring wells shall be specified by the County Hydrologist. However, at least one of the wells shall be at the Oil or Gas Facility or, if directional drilling or horizontal drilling is utilized, at least one monitoring well shall be located at the surface location corresponding to the bottomhole location. A down gradient well or wells shall be provided. If permission to utilize property for purposes of locating a monitoring well is not provided, the Operator may use County rights-of-way or property as sites for monitoring wells. Water samples from all water wells and surface water sources within a three mile radius of the proposed Well site shall be taken and the parameters tested to establish the baseline water quality in the area. All samples shall be split with the County to enable the County to conduct independent testing. The parameters to be tested shall be specified by the Administrator and the County Hydrologist.

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Protecting Groundwater

11.25 Fracturing and Acidizing

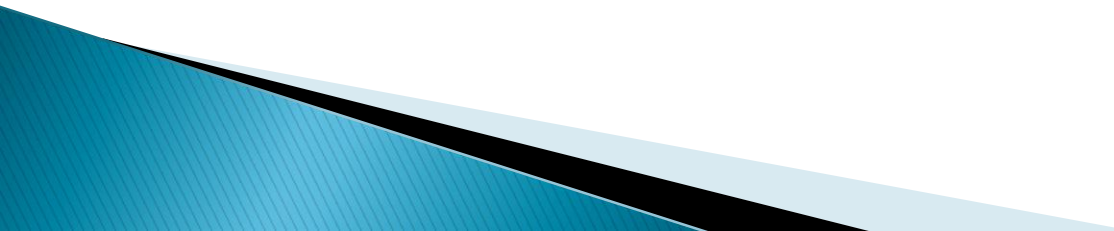
11.25.1 Fracturing and acidizing of any well shall be performed in strict compliance with applicable OCD rules and the practices of a reasonable and prudent operator. Fracturing pressures shall be controlled to limit the extent to which fractures escape the zone being fractured. Fracturing operations may be monitored by the Oil and Gas Inspector to ensure compliance with these standards.



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11.25.4 Fracturing operations shall **only use fresh water** as the fluid component of the fracturing material. Water and sand used in fracturing operations shall not contain dissolved hydrocarbons or other toxic contaminants. The use of synthetic fracturing fluids is prohibited. Fracturing with brine is prohibited.



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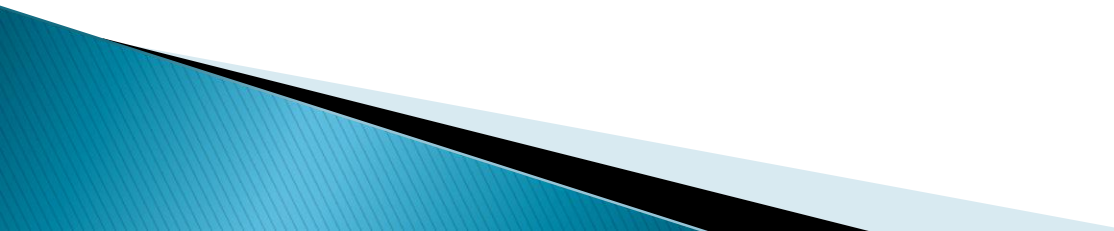
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11.25.4 (continued) If the County Petroleum Engineer agrees, subject to clear and convincing evidence, that use of fresh water during fracturing operations would damage the rock formation so that the oil and gas cannot be recovered, use of other fluids may be authorized so long as the exact constituents of the fluids are on the prescribed list of chemicals, minerals, or materials and approved by the Board, a ground water monitoring program is established, and the need for the use of the specific constituents are verified by the County Petroleum Engineer and approved by a medical professional, both to be selected by the County.

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11.25.4 (continued) Fracturing pressures shall be strictly controlled as provided in the previous paragraph to the satisfaction of the County Petroleum Engineer and oil and gas inspector.



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Protecting Groundwater

11.25.5 After fracturing operations are completed, all fluids used in the operations shall, to the extent technologically possible, be removed from the well.

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Protecting Groundwater

11.33 Water Quality

(2) The Oil or Gas Facility or Facilities shall not cause degradation in the water quality of any public or private well so that any regulated groundwater standard is exceeded or cause a reduction in water pressure of any public or private water wells.

(3) The Oil or Gas Facility or Facilities shall not pose any significant risk, nor cause any significant degradation to subsurface water resources.

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Protecting Groundwater

11.34 Disposal of Salt Water or Other Deleterious Substances

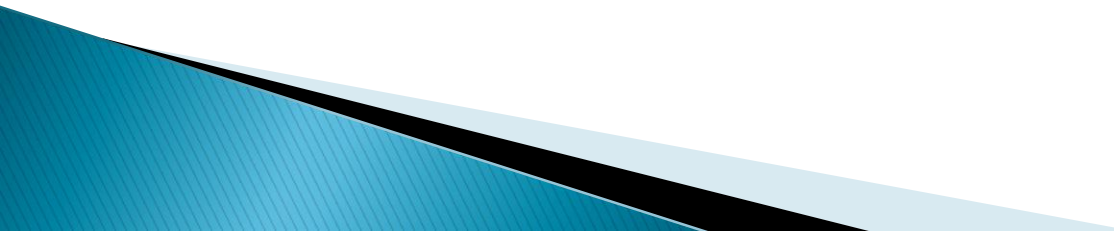
11.34.1 There shall be no disposal of saltwater, produced water or water containing salts or other minerals in quantities that exceed applicable ground water standards established by the Water Quality Control Commission, at the site of the Oil or Gas Facility.

11.34.2 Drilling mud shall be disposed of by transporting the mud to an OCD-licensed disposal site. The mud may not be buried in an earthen pit on site, pumped down the well bore or down the annulus of a well, or spread on the surface of the ground at the site.

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11.25.4 (continued) Fresh water that meets or exceeds drinking water standards shall be used and such water shall be obtained from the County or a municipal system that supplies drinking water, or a private source, and shall comply with the Water Availability Assessment.



Questions?

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