



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 02-0278322

THE APPLICATION OF KARNES COUNTY PROPERTIES, LLC FOR COMMERCIAL DISPOSAL AUTHORITY PURSUANT TO STATEWIDE RULE 9 FOR THE KC SWD LEASE, WELL NO. 1, EAGLEVILLE (EAGLE FORD-2) FIELD, KARNES COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Michael Crnich - Legal Examiner

APPEARANCES:

REPRESENTING:

APPLICANT:

Jamie Nielson
Steve Towns
Nguyen Ngoc
Gary Lavergne

Karnes County Properties, LLC

PROTESTANTS:

Jacob Arechiga
Ed Small
Thomas Richter
Cheryl Moy

Thomas and Cheryl Moy and
Roberto and Dina Ramirez

Mayor Don Tymrak

Karnes City

David Wallace

EL OSO WSC

Oscar Morin

Self

Hugh Ruckman

Self

Mary Louise Jonas

Self

Eric Opiela

Self

PROCEDURAL HISTORY

Application Filed:	May 16, 2012
Protest Received:	May 23, 2012
Request for Hearing:	August 28, 2012
Notice of Hearing:	October 1, 2012
Hearing Held:	December 13, 2012
Transcript Received:	January 7, 2013
Record Closed:	February 1, 2013
Proposal for Decision Issued:	February 26, 2013

EXAMINERS' REPORT AND PROPOSAL FOR DECISION**STATEMENT OF THE CASE**

Karnes County Properties, LLC ("Karnes") requests commercial disposal authority pursuant to Statewide Rule 9 for the KC SWD Lease, Well No. 1, Eagleville (Eagle Ford-2) Field, Karnes County, Texas.

Notice of the application was published in *The Karnes Countywide*, a newspaper of general circulation in Karnes County, on May 16, 2012. Notice of the application was sent to the Karnes County Clerk, offset operators within ½ mile and to the surface owners of each tract which adjoins the disposal tract on May 11, 2012.

The application is protested by the Mayor of Karnes City and surface owners adjacent to and near the tract on which the proposed disposal well is located.

DISCUSSION OF THE EVIDENCE**Applicant's Evidence**

The proposed disposal well is located on a 9.55 acre tract adjacent to and west of FM 1353. The tract is located within the extra territorial jurisdiction of Karnes City, Texas. Karnes plans to drill a new injection well down to 8,150 feet. The well will have 9 5/8" surface casing set at 5,600 feet that will be cemented to the surface with 2,000 sacks of cement. Karnes proposes to run 7" production casing to 8,150 feet that will be cemented to the surface with 1,300 sacks of cement. The well will be equipped with 5 1/2" tubing and packer set at 6,900 feet (See attached Karnes Exhibit No. 24 - Wellbore Diagram).

The proposed disposal interval is located in the Wilcox formation between 6,900 feet and 8,000 feet. The disposal interval is continuous and has approximately 400 feet of sand development. The interval is suitable for disposal and is used for disposal in other area wells. There is more than 200 feet of shale above the proposed disposal interval, which

will serve to prevent the migration of injected fluids out of the disposal interval. Karnes requests authority to dispose of a maximum of 25,000 barrels of salt water and RCRA¹ exempt waste per day with a maximum surface injection pressure of 3,450 psig.

The Commission Groundwater Advisory Unit ("GAU") recommends that usable-quality groundwater be protected down to a depth of 1,350 feet below the land surface. The base of the underground source of drinking water ("USDW") is 6,500 feet. Bellows submitted a GAU letter dated May 7, 2012, which stated that injection into the proposed injection interval will not harm usable-quality groundwater.

There are four Eagle Ford formation horizontal drainhole wells, operated by Plains Exploration & Prod. Co., located within the 1/4 mile radius of review. There is one Eagle Ford formation horizontal drainhole well, operated by Marathon Oil EF LLC, located within the 1/2 mile radius of review. All of the wells are cased and cemented to protect usable-quality groundwater and have cement across the proposed Wilcox formation disposal interval.

The proposed Karnes facility is located in the central portion of Karnes County. The Eagle Ford formation development core area encompasses all of Karnes County and the two adjoining counties of De Witt and Gonzales. Karnes submitted a seven mile radius map around the proposed facility depicting several hundred permitted or drilled Eagle Ford formation horizontal wells. A summary of the RRC database for Karnes County showed that 243 drilling permits were issued in 2010, 515 drilling permits were issued in 2011 and 870 drilling permits were issued in 2012.

Karnes also submitted completion papers on fifteen recently potentialized area Eagle Ford formation wells. The wells were fraced with large volumes of water and averaged over 900 BWPD during their initial flowback. Karnes calculated that approximately 1.6 million barrels of water per day will be produced from the almost 1,600 permitted wells in Karnes County. Karnes opined that the Eagle Ford formation trend wells will produce significant volumes of frac and produced water. Karnes believes that additional disposal facilities are necessary to accommodate the Eagle Ford formation development that is ongoing in Karnes County.

The Facility

The area surrounding the proposed injection facility contains commercial and industrial developments within the extra territorial jurisdiction of Karnes City, Texas. Adjacent to the southwest corner of the proposed disposal tract is a large production facility owned and operated by Plains Exploration & Prod. Co. Access to the disposal facility will

¹ Resource Conservation and Recovery Act: Examples of RCRA exempt oil and gas waste includes produced water, drilling fluids, frac flowback fluids, rigwash and workover wastes.

be off of FM 1353, which is a paved two lane public highway. At an average injection rate of 15,000 BWPD, there will be approximately 120 trucks per day accessing the facility.

The facility will have a circular driveway and will be of sufficient size to allow trucks access without having to wait on the highway. The surface facility will be manned 24 hours per day. A firewall will be constructed around the entire facility to contain any spilled fluids and the tanks will be equipped with high water level switches to prevent overflows. Additionally, the facility will comply with all of the permit conditions required by the Commission staff.

Karnes has a current approved Form P-5 (Organization Report), but has not posted a financial assurance bond, since it does not currently operate any wells. Karnes is planning to post a financial assurance bond with the Commission prior to applying for the disposal well drilling permit and commencing operations.

Protestants' Evidence

The protestants are the Mayor of Karnes City and surface owners adjacent to and near the tract on which the proposed disposal well is located. They believe that the application for the proposed commercial disposal well and facility should be denied. The protestants' evidence fell into several general categories: 1) potential of pollution of surface or subsurface waters; 2) noise, dust and odor nuisances which would result from the operation of the facility; and 3) increased heavy truck traffic on FM 1353 near the intersection of State Highway 181, causing road deterioration and public safety issues. Collectively, the testimony and statements in opposition to the facility assert that the proposed commercial disposal facility will have adverse effects on traffic safety, property values and the quality of life in and around the area of the intersection of FM 1353 and State Highway 181.

Mayor Don Tymrak submitted Resolution No. 2012-97 on behalf of the City Council of Karnes City, Texas. The November 20, 2012, resolution opposes the proposed saltwater disposal well, which will be located within the extra territorial jurisdiction of Karnes City. The City Council believes that the population of Karnes City will be subjected to unreasonable harm and be adversely affected should the permit to construct a saltwater disposal facility at the proposed location be granted. The City Council suggests that an alternative undeveloped area be considered.

The protestants' expert engineering witness did not believe that there was an industry need for additional disposal capacity in this area at this time. The expert submitted a map showing that there were 30 permitted commercial disposal wells, of which nine were currently active, in Karnes County. The permitted disposal capacity was 608 MBWPD and the actual disposal volume was 28 MBWPD, resulting in a utilization rate of 4.7% of the permitted disposal capacity. In a ten mile radius of the proposed disposal well, there were 17 permitted commercial disposal wells, of which five were currently active.

The permitted disposal capacity was 345 MBWPD and the actual disposal volume was 18 MBWPD, resulting in a utilization rate of 5.2% of the permitted disposal capacity. The expert opined that the current active disposal capacity was more than sufficient to meet the current demand.

EXAMINERS' OPINION

The examiners recommend that the application for commercial disposal authority be approved. Karnes has established:

1. The water resources (surface and sub-surface) are adequately protected from pollution;
2. The proposed injection well will not endanger or injure any oil, gas, or mineral formations;
3. The proposed injection well is in the public interest;
4. A satisfactory showing of financial responsibility, as required under Commission statutes and Commission regulatory requirements.

The well will be completed in a manner which will protect usable-quality groundwater resources and injected fluids will be confined to the injection interval. The proposed disposal well will have cement behind the production casing to surface and there is more than a 200 foot thick shale interval overlying the Wilcox disposal interval. Injection will be through tubing set on a packer to confine injected fluids to the Wilcox interval between 6,900 feet and 8,000 feet. Finally, there are four Eagle Ford formation horizontal drainhole wells, operated by Plains Exploration & Prod. Co., located within the 1/4 mile radius of review. There is one Eagle Ford formation horizontal drainhole well, operated by Marathon Oil EF LLC, located within the 1/2 mile radius of review. All of the wells are cased and cemented to protect usable-quality groundwater and have cement across the proposed Wilcox formation disposal interval.

Approval of the application is in the public interest. The proposed Karnes facility is located in the central portion of Karnes County. The Eagle Ford development core area encompasses all of Karnes County and the two adjoining counties of De Witt and Gonzales. Within a seven mile radius around the proposed facility, there are several hundred permitted or drilled Eagle Ford Formation horizontal wells. In Karnes County, there were 243 drilling permits issued in 2010, 515 drilling permits issued in 2011 and 870 drilling permits issued in 2012. Completion papers on fifteen recently potentialized area Eagle Ford formation wells show that the wells were fraced with large volumes of water and averaged over 900 BWPD during their initial flowback. Karnes calculated that approximately 1.6 million barrels of water per day will be produced from the almost 1,600 permitted wells in Karnes County. The Eagle Ford trend wells will produce significant

volumes of frac and produced water and additional disposal facilities are necessary to accommodate the Eagle Ford development that is ongoing in Karnes County.

The surface facility will be newly constructed and is of sufficient size to accommodate trucks hauling water to the facility without creating a traffic hazard on the highway that provides access to the facility. The protestants' traffic safety, property value and nuisance concerns are not within the Commission's jurisdiction to address. Compliance with permit conditions will minimize the risk of spills at the facility and will prevent the migration of any spills that occur, thereby protecting both ground and surface water.

FINDINGS OF FACT

1. Notice of the application and hearing was provided to all persons entitled to notice. Notice of the application was published in *The Karnes Countywide*, a newspaper of general circulation in Karnes County, on May 16, 2012.
2. Notice of the application was sent to the Karnes County Clerk, offset operators within ½ mile and to the surface owners of each tract which adjoins the disposal tract on May 11, 2012.
3. The proposed injection into the KC SWD Lease, Well No. 1, will not endanger useable quality water.
 - a. The Commission Groundwater Advisory Unit ("GAU") recommends that usable-quality groundwater be protected down to a depth of 1,350 feet below the land surface.
 - b. The well will have 9 5/8" surface casing set at 5,600 feet that will be cemented to the surface with 2,000 sacks of cement.
 - c. There is more than 200 feet of shale above the proposed disposal interval which will serve to prevent the migration of injected fluids out of the disposal interval.
4. The proposed injection into the KC SWD Lease, Well No. 1, will not endanger production from other oil, gas or mineral bearing formations.
 - a. Karnes County Properties, LLC ("Karnes") plans to drill a new injection well down to 8,150 feet.
 - b. Karnes proposes to run 7" production casing to 8,150 feet that will be cemented to the surface with 1,300 sacks of cement.

- c. The well will be equipped with 5 1/2" tubing and packer set at 6,900 feet.
 - d. There are four Eagle Ford formation horizontal drainhole wells, operated by Plains Exploration & Prod. Co., located within the 1/4 mile radius of review. There is one Eagle Ford formation horizontal drainhole well, operated by Marathon Oil EF LLC, located within the 1/2 mile radius of review. All of the wells are cased and cemented to protect usable-quality groundwater and have cement across the proposed Wilcox formation disposal interval.
5. Use of the KC SWD Lease, Well No. 1, as commercial disposal well is in the public interest because it will reduce hauling distances and will provide needed commercial disposal capacity for wells to be drilled, completed and produced in the area of the proposed facility.
- a. The Eagle Ford formation development core area encompasses all of Karnes County and the two adjoining counties of De Witt and Gonzales.
 - b. A seven mile radius map around the proposed facility depicts several hundred permitted or drilled Eagle Ford formation horizontal wells.
 - c. A summary of the RRC database for Karnes County shows that 243 drilling permits were issued in 2010, 515 drilling permits were issued in 2011 and 870 drilling permits were issued in 2012.
 - d. Eagle Ford formation wells are fraced with large volumes of water and average over 900 BWPD during their initial flowback.
 - e. Approximately 1.6 million barrels of water per day will be produced from the almost 1,600 permitted wells in Karnes County.
 - f. The Eagle Ford formation trend wells will produce significant volumes of frac and produced water.
 - g. Additional disposal facilities are necessary to accommodate the Eagle Ford formation development that is ongoing in Karnes County.
6. Karnes has a current approved Form P-5 (Organization Report), but has not posted a financial assurance bond, since it does not currently operate any wells. Karnes will post a financial assurance bond with the Commission prior to applying for the disposal well drilling permit and commencing operations.

CONCLUSIONS OF LAW

1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
2. All things necessary to give the Railroad Commission jurisdiction to consider this matter have occurred.
3. Approval of the application will not harm useable-quality water resources, will not endanger oil, gas, or geothermal resources, will promote further development in this area of Karnes County and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.
4. Karnes County Properties, LLC has met its burden of proof and its application satisfies the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 9.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission approve the application of Karnes County Properties, LLC for commercial disposal authority for the KC SWD Lease, Well No. 1, as set out in the attached Final Order.

Respectfully submitted,



Richard D. Atkins, P.E.
Technical Examiner



Michael Crnich
Legal Examiner