



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

PROPOSAL FOR DECISION

OIL AND GAS DOCKET NO. 01-0285961

THE APPLICATION OF SELECT ENERGY SERVICES, LLC PURSUANT TO STATEWIDE RULE 9 FOR A COMMERCIAL PERMIT TO DISPOSE OF OIL AND GAS WASTE BY INJECTION, SELECT GONZALES SWD LEASE, PEACH CREEK (AUSTIN CHALK) FIELD, GONZALES COUNTY, TEXAS

HEARD BY: Paul Dubois – Technical Examiner
Randall Collins – Administrative Law Judge

APPEARANCES:

REPRESENTING:

APPLICANT:

Stephen Fenoglio
R. J. Metzler
Dave Henley
Kerry Pollard, P. E.
Amber Lorick

Select Energy Services, LLC

PROTESTANTS:

Peter Gregg
Allen Barnes
Judge David Bird
Gary Baker
Elaine Baker
John Klapuch
Martin Haley
Weldene Robinson
Greg Singlemean
Carolyn Debrick, P. E.
Bobby Robinson

Citizens of Gonzales Opposing Disposal
Wells in Neighborhoods

PROCEDURAL HISTORY

Application Filed:	May 23, 2013
Protest Received:	May 17, 2013
Request for Hearing:	November 7, 2013
Notice of Hearing:	February 11, 2014
Amended Notice of Hearing:	May 12, 2014
Dates of Hearing:	October 29, 2015 November 5, 2015 November 9, 2015
Transcript Received:	December 9, 2015
Proposal For Decision Issued:	February 22, 2016

STATEMENT OF THE CASE

Select Energy Services, LLC (“Select”) seeks commercial authority to dispose of oil and gas waste by injection into a porous formation not productive of oil, gas or geothermal resources pursuant to Statewide Rule 9 (16 Tex. Admin. Code §3.9) for the Select Gonzales SWD Lease, Well No. 1, in the Peach Creek (Austin Chalk) Field, Gonzales County, Texas. The proposed disposal well will be located about one mile southeast of Gonzales on U.S. Highway 90A. Select seeks authority to inject waste into the Edwards and Glen Rose Formations in the depth interval from 8,430 feet to 10,100 feet.

Notice of the application was published in the *Gonzales Inquirer*, a newspaper of general circulation in Gonzales County, on May 17, 2013, February 21, 2014, and November 7, 2014. On May 23, 2013, February 14, 2014, and January 23, 2015, notice of the application was mailed to the Gonzales County Clerk, the surface owner of the disposal tract, the owner of all adjoining surface tracts, and all operators of wells within a one-half mile radius of the proposed disposal well’s surface location.

The application is protested by Citizens of Gonzales Opposing Disposal Wells in Neighborhoods (“CGODWIN”), an organization of persons in the community, including several owners of surface tracts adjoining the proposed disposal tract. The docket file contains a copy of Gonzales City Council Resolution No. 2014-114, dated October 7, 2014, opposing the proposed disposal well located in the City’s extraterritorial jurisdiction, and a letter dated October 21, 2014, from Mayor Robert Logan expressing the same. City Manager Allen Barnes attended the hearing in protest on behalf of the City of Gonzales. Gonzales County Judge David Bird and County Commissioners Donnie Brzozowski and Kenneth “Dell” Whiddon personally oppose the permit. The application is also protested by the Gonzales County Underground Conservation District. The Protestants participated in the hearing by providing direct testimony and evidence.

The Administrative Law Judge and Technical Examiner (collectively “Examiners”) conclude Select has not met its burden of proof pursuant to Statewide Rule 9 and Chapter 27 of the Texas Water Code. The evidence in the record demonstrates the proposed disposal well is not in the public interest. The Examiners recommend Select’s application be denied.

APPLICABLE LAW

The Railroad Commission may grant an application for a disposal well permit under Texas Water Code § 27.051(b) and may issue a permit if it finds:

1. The use or installation of the injection well is in the public interest;
2. The use or installation of the injection well will not endanger or injure any oil, gas, or other mineral formation;
3. With proper safeguards, both ground and surface fresh water can be adequately protected from pollution; and
4. The applicant has made a satisfactory showing of financial responsibility as required by Section 27.073.

DISCUSSION OF EVIDENCE

APPLICANT’S EVIDENCE

Three witnesses testified on behalf of Select: (1) R. J. Metzler, Director of Select’s disposal business in six oil and gas producing basins, including the Eagle Ford Shale; (2) Dave Henley, Select’s Senior Vice President for Business Development; and (3) Kerry Pollard, P.E., consulting petroleum engineer. Select operates one other commercial disposal well in the area, the F. W. Boothe Well No. 2, located about 5 miles south of the proposed disposal well. Select asserts the proposed disposal well meets the Commission’s standards and will reduce truck traffic through the City of Gonzales. In addition, Select offers operators complete water solutions—supplying water for drilling and completion, disposing of produced water and flowback, and hauling water to and from well locations.

Facility Design and Operation

The proposed disposal well will be located on a 17.6 acre tract owned by Select located on the south side of US Hwy. 90A about one mile southeast of Gonzales. The tract includes two parcels of land, one of which contains an unoccupied former residence. Until

recently Select has used a portion of the tract as a truck yard. Select proposes to drill, complete and operate its Select Gonzales SWD Well No. 1 as follows:¹

- Drilled to a total depth of 10,200 feet;
- Surface casing (9 5/8-inch) will be set at a depth of 2,750 feet and cemented to the surface;
- Long-string casing (7-inch) will be set to a depth of 10,200 feet and cemented with 705 sacks of cement to a depth of 6,344 feet;
- The long-string casing will be perforated for injection in the disposal interval from 8,430 feet to 10,100 feet, into the Edwards and Glen Rose Formations;
- Injection tubing (4 ½-inch) will be set with a packer at a depth of 8,380 feet;
- The maximum daily injection volume will be 25,000 barrels per day ("bpd") and the estimated average daily injection volume will be 25,000 bpd;
- The maximum surface injection pressure will be 4,215 pounds per square inch gauge ("psig") and the average surface injection pressure will be 4,215 psig;
- Injected waste will be limited to produced salt water and non-hazardous oil and gas waste exempt from regulation under the Resource Conservation and Recovery Act.

Select has not obtained a drilling permit for the proposed well. The application indicates the proposed location of the well to be near the southern edge of the 17.6-acre tract. Select has not yet designed the surface facilities for the proposed disposal well. However, Select's witnesses and evidence indicate the proposed surface facility will include: (1) a closed waste collection system to preclude the need for open pits or trenches; and (2) concrete secondary containment structures capable of containing 110 percent of the maximum on-hand waste volume. Select intends to design and build the proposed surface facilities similar to those at other injection wells it operates in Texas. Select anticipates the disposal well facility will cost \$4 to \$4.5 million to build.

Groundwater, Geology and Hydrocarbon Resources

The Commission's Groundwater Advisory Unit ("GAU") indicates the subsurface interval from the land surface to a depth of 100 feet and the Sparta Formation from 700 to

¹ Select Exh. No. 11.

1,000 feet contain usable quality groundwater and must be protected. Within a 2-mile radius 36 water wells were identified, all of which produce from a depth of 540 feet or shallower. The GAU identifies the base of usable quality water ("BUQW") to be at a depth of 1,000 feet, and the base of underground sources of drinking water ("USDW") to be at a depth of 2,700 feet. The GAU concludes that drilling and using the proposed disposal well will not endanger freshwater strata in the area.² Further, the GAU indicates that geologic isolation below the fresh water strata occurs at a depth of 5,300 feet.

A three-well cross-section indicates geological continuity across the area. The nearest well on the cross section, the Mildred Nagel Lease Well No. 1 (API No. 42-177-31606), located about one-half mile to the east of the proposed disposal well, was completed in the Peach Creek (Buda) Field in 1985 and recompleted in the Peach Creek (Austin Chalk) Field later that year. The log of the Nagel Well No. 1 indicates a very thick shale sequence from about 5,300 feet to about 7,500 feet below ground surface. This interval isolates the overlying fresh water zones from the underlying hydrocarbon-bearing zones, and, below that, the deeper disposal interval.

Hydrocarbon resources in the area are produced primarily from two formations, the Austin Chalk and the Eagle Ford Shale. Some production from the Buda Limestone is documented. Commission records for the Mildred Nagel Lease Well No. 1 indicate the Austin Chalk was encountered at a depth of 7,700 feet, the Eagle Ford Shale was encountered at a depth of 8,190 feet, the Buda Limestone was encountered at a depth of 8,209 feet, and the Del Rio Shale was encountered at 8,315 feet. The Nagel Well No. 1 produced briefly from the Buda Limestone before that completion was isolated with a bridge plug and the well was recompleted in the Austin Chalk Formation.

Below the Buda Limestone are the Del Rio Shale and the Georgetown Formations. The Del Rio and Georgetown Formations isolate the hydrocarbon producing intervals from the underlying injection interval. Select asserts the Del Rio Shale, especially, to be an effective confining layer. Together, these two formations provide about 115 feet of shale and limestone separation between the injection interval and the overlying productive formations.

The Edwards and Glen Rose Formations are expected to have good porosity development, as indicated on the log cross-section. The porosity development and thickness of the disposal interval make these formations well-suited for disposal. The injection zone is underlain by the Pearsall Shale, which will function as a lower confining stratum.

² The GAU no-harm letter was based on surface casing set to 1,000 feet and cemented to the surface. At the hearing, Select amended its application to provide for 2,750 feet of surface casing cemented to the surface, isolating all aquifers including and above the USDW.

The records of the United States Geologic Survey (“USGS”) do not identify any historical seismic activity since 1973 within a 6-mile radius of the proposed well, an area encompassing 113 square miles.

Area of Review

There are no wellbores or other artificial penetrations into the disposal interval within a one-quarter mile area of review around the proposed disposal well location. There are two wellbores within a one-half mile radius of the proposed disposal well. The Mildred Nagel Well No. 1, located about one-half mile southeast was drilled to a depth of 8,335 feet, plugged back to 8,285 feet. The Nagel Well No. 1 does not penetrate the disposal interval. The well is currently inactive but has not been plugged. The production casing was cemented to a depth of 6,650 feet. The bottom hole location of the Henershot Unit Well No. 1 (API No. 42-177-31254), a southeast Austin Chalk sidetrack, is within the one-half mile radius of the proposed disposal well. The sidetrack lateral does not penetrate the disposal interval, and the surface location is about one mile west of the proposed disposal well.

Public Interest and Need for Additional Disposal Capacity

The proposed disposal well is located in an area of active oil and gas development primarily associated with the Eagle Ford Shale and historical production from the Austin Chalk. The number of drilling permits issued and wells completed increased rapidly into 2014, but have since declined, mirroring the recent decline in commodity prices. Within a 20-mile radius of the proposed disposal well, the Commission issued 674 drilling permits in 2013, 642 permits were issued in 2014, and 165 permits have been issued through November 2015. Within the same area, 391 wells were completed in 2013, 482 wells were completed in 2014, and 249 wells were completed through November 2015. Select anticipates that the activity will increase in the future when commodity prices recover.

Select identified 18 active commercial disposal wells within a 20-mile radius of the proposed wells. Of these 18 wells, three are located within 5 miles of the proposed disposal well, six are located within 10 miles, and 12 are located within 15 miles. These 18 commercial disposal wells account for a total permitted disposal capacity of 375,000 bpd. One of these wells is Select’s F. W. Boothe Well No. 2, located about five miles south of the proposed disposal well, and permitted to inject 15,000 bpd.

Select estimates that only 4 of the those 18 active commercial disposal wells have excess capacity available to serve Select’s trucking services in the area³; thus, only 32,500

³ Select’s business operations primarily center on waste hauling services.

bpd of the permitted disposal capacity is available to Select's own hauling trucks for disposal. Select cites the following causes for these limitations:⁴

- Select will not use 4 of the 18 wells because those facilities do not meet Select's environmental standards based on visual inspection (formal audits were not performed);
- Select will not use 8 of the 18 wells because accessing those facilities will require Select's trucks to travel through the City of Gonzales;
- Select cannot use 2 of the 18 disposal wells because the operators of those wells are trucking competitors and have refused to dispose of water hauled by Select's trucking services;
- The available disposal capacity at 11 of the 18 disposal wells is limited by mechanical issues (pump limitations or pressure restrictions), operational problems, or other factors.

Select argues the proposed disposal well is necessary because of the limitations associated with the existing disposal facilities, and the location is well suited to meet the current and future needs of the industry in this area. The nearest Eagle Ford Shale well is located about 3 miles to the southeast, and the trend of Eagle Ford Shale development runs from the northeast to southwest. Being on the southeast side of Gonzales on US Hwy. 90A, the well can be utilized by trucks that do not have to drive through the City of Gonzales.

Mr. Metzler visited each of the 18 active commercial disposal well sites to assess the need for additional capacity in the area. He testified to his observations of trucks "piling up" while waiting to unload.⁵ None of the facilities indicated to Mr. Metzler that they were operating at capacity. Mr. Metzler reported seeing one to two hour wait times at two of the 18 facilities, and no significant wait time at the other 16.⁶ Mr. Metzler did not offer documentary evidence of his site visits.

Select does not consider the disposal tract to be located in a neighborhood, and contends the proposed disposal well location is in a rural area similar to other areas in which it operates disposal wells, especially with regard to the proximal location of the proposed facility to nearby residences. The Examiners note that there is a house on the

⁴ Select Exh. No. 8.

⁵ Tr. Vol. 1, pgs. 121-122.

⁶ Tr. Vol. 1, pgs. 124-125.

17.6 acre property. The house is located on one of two parcels that comprise the disposal tract that were acquired by Select following the death of the prior owner.⁷

Operator Experience and Qualifications

Select holds a current Form P-5 Organization Report (Operator No. 765602). Select has filed a \$50,000 bond with the Commission for financial assurance. Select operates 14 commercial disposal wells in Texas, including seven in the Eagle Ford Formation play. Select also operates disposal wells in Colorado, Ohio and Oklahoma. Select's witnesses stated they knew of no violations or enforcement actions with regard to its commercial disposal business.

PROTESTANT'S EVIDENCE

Nine witnesses testified on behalf of the protestant, CGODWIN, including members Gary Baker, Elaine Baker, Martin Haley, John Klapuch, and Weldene Robinson, all of whom own residential property adjoining the disposal tract. The following persons also testified on behalf of CGODWIN: (1) Allen Barnes, Gonzales City Manager; (2) Gonzales County Judge David Bird; (3) Greg Singleman, General Manager of the Gonzales County Underground Conservation District; and (4) Carolyn Debrick, P. E., consulting petroleum engineer. The primary focus of CGODWIN's protest was on the public interest element of the Texas Water Code §27.051(b)(1). Specifically, CGODWIN asserts that disposal wells do not belong in neighborhoods, and that there is currently a large surplus of disposal capacity in the area.

The Neighborhood

Select acquired the proposed disposal site—two tracts, one of which contains a house—after the death of the previous owner.⁸ The entrance to Select's proposed disposal tract (existing Select truck yard) is located 4,917 feet from the Gonzales City Limits.⁹ The tract is on the south side of US Hwy. 90A. There are 16 houses within 750 feet of the Select facility driveway on US Hwy. 90A.¹⁰ Within a one-half mile radius of the tract there are 60 homes, 31 of which are within a one-quarter mile radius. There are a number of houses along US Hwy. 90A near the facility, and along County Road 342 (Kelley Loop), which abuts the southern disposal tract boundary. Some of the residential tracts in the area include undeveloped acreage and pasture land. For about the past year and a half,

⁷ Select Exh. No. 31; Tr. Vol. 1, pgs. 214-215; CGODWIN Exh. Nos. 4, 5 & 7.

⁸ Tr. Vol. 1, pgs. 214-215.

⁹ CGODWIN Exh. No. 38.

¹⁰ CGODWIN Exh. No. 6.

Select has been operating its trucks from the property,¹¹ which included placing a caliche/gravel pad on the site and a concrete entrance from the highway. Select has recently stopped using the site as a truck yard.

The City of Gonzales opposes the application because the facility is within its extra-territorial jurisdiction ("ETJ"), and especially as the facility lies within the service area of the City's fire department. County Judge David Bird and County Commissioners Donnie Brzozowski and Kenneth "Dell" Whiddon also personally oppose the permit and believe such a facility should not be placed in close proximity to homes. The facility's location on US Hwy. 90A is also problematic for the Protestants due to traffic safety concerns. The adjoining property owners are concerned about industrial safety, increased traffic, and nuisance dust from the facility. In 2015, Mr. Baker filed a complaint with the Texas Commission on Environmental Quality ("TCEQ") after Select's trucking activities caused dust to blow from the facility and be deposited on his property.

The Protestants cited materials from Select's website articulating its corporate values and commitment to the communities in which it operates; the Protestants believe placement of the proposed disposal well in this community runs counter to Select's stated commitments.¹² Mr. Baker referred to photographs he took of Select's disposal well in Kenedy, Texas, as an example of a more appropriate location for a disposal well, as the closest house was about a mile away.¹³

Status of Existing Disposal Capacity

The members of CGODWIN conducted observation surveys of the commercial disposal wells located within about 20 miles from the proposed disposal well. CGODWIN documented each visit with photographs and an observation worksheet identifying the following:

- Commercial disposal well facility name, operator and location;
- Date, time and duration of the observation;
- The number of trucks observed at the facility at the time of observer's arrival;
- The number of trucks observed at the facility unloading waste;

¹¹ Tr. Vol. 1, pg. 216: 2-4.

¹² CGODWIN Exh. No. 2.

¹³ CGODWIN Exh. No. 9. Tr. Vol. 1, pgs. 219-220.

- The number of trucks observed at the facility waiting to unload waste during observer's visit, and the wait time experienced by the trucks;
- The number of trucks observed at the facility at the time of observer's departure; and
- The signature of the observer(s).

Eight CGODWIN members made 77 visits to 14 commercial disposal wells from July to October 2014 and September to October 2015. Observation worksheets and photographs were entered into evidence for each visit (CGODWIN Exhibit Nos. 10 through 36, 39 and 40), and a summary table of the observations was also prepared (CGODWIN Exhibit No. 41). The observations were of varying duration—from about one minute to an hour. The observational surveys recorded the following:

- On 40 of the 77 visits there were no trucks observed at the disposal well sites visited. Of the "no truck" observations, 10 occurred in 2014 and 30 occurred in 2015.
- On 4 of the 77 visits at least one truck was observed to have to wait for an opportunity to unload. The longest wait time was observed to be 20 minutes.

CGODWIN's analysis of commercial disposal wells within a 20-mile radius of the proposed disposal well exhibited similar but slightly different results from Select's evidence. Notably, CGODWIN identified the NGL Water Solutions Shiner District SWD located about 10 miles southeast of the proposed disposal well on US Hwy. 90A. This well was not identified as an active commercial disposal well by Select or included in its exhibits and analysis. The NGL District Shiner well has a permitted injection capacity of 25,000 bpd. The NGL District Shiner well was observed to be receiving waste, but has not yet filed an annual Form H-10. Mr. Singleman provided a tabulation indicating only 16 percent of the available disposal capacity in Gonzales County was utilized in 2014, and the disposal need has decreased significantly since then.¹⁴

In addition to the active commercial disposal wells identified by Select, CGODWIN points out there are 14 more commercial disposal wells in Gonzales County that have been permitted by the Commission but have not yet been drilled or become active.¹⁵ Ten of the 14 permitted (but undrilled or inactive) wells have a combined permitted maximum daily injection volume of 245,000 bpd. Five of the 14 permitted (but undrilled or inactive) wells

¹⁴ CGODWIN Exhibit No. 47.

¹⁵ CGODWIN Exhibit No. 45.

are within about a 10-mile radius of the proposed disposal well. All five of those are located to the east of Gonzales, as is the subject proposed disposal well.

Future Capacity Needs

Ms. Debrick analyzed the Eagle Ford development within a 20-mile radius of the proposed disposal well. The proposed disposal well itself is outside of the currently developed Eagle Ford Shale play. The nearest Eagle Ford well is about 3 miles to the southeast, and the trend runs from northeast to southwest. Ms. Debrick estimates 249,600 acres of developable Eagle Ford Shale acreage are within the 20-mile radius and 1,532 wells have been completed in the Eagle Ford Shale in this area. Based on an estimated drainage area of about 120 acres and between-well lateral spacing of 800 to 1,000 feet, Ms. Debrick concludes that the Eagle Ford Formation in this area has been 70 percent developed.

Ms. Debrick acknowledges that the total permitted disposal capacity is not an accurate indicator of the disposal capacity actually available for a particular well or in a particular area. To assess the utilization of disposal capacity for the month of July 2015, Ms. Debrick assumed that 75 percent of the total permitted capacity was the actual available capacity. Based on this assumption, in July 2015 only 15 to 17 percent of the actual available capacity was utilized for disposal. Therefore, she concludes, given the remaining field area to be developed, the existing active disposal capacity and the existing permitted capacity there is no long-term need for additional disposal permits in this area.

Well Construction

As a drilling engineer, Ms. Debrick expressed concerns regarding the cementing design for the proposed disposal well. Specifically, the Austin Chalk Formation is depleted in this area, and the natural fractures in the Austin Chalk Formation may cause problems with cementing and cement coverage between the casing and formation. She would prefer to see the 7-inch casing cemented with Class-H cement to a depth above the base of the Wilcox Formation, which would likely require use of a stage tool and confirmation by cement bond log.

EXAMINERS' ANALYSIS OF THE EVIDENCE

The Examiners conclude Select has not met its burden of proof pursuant to Statewide Rule 9 and Chapter 27 of the Texas Water Code. While Select's testimony and evidence indicates that the proposed disposal well may be in its own individual and private business interest, it fails to demonstrate the well is in the public interest. Further, protestant CGODWIN produced persuasive evidence demonstrating that the current available and permitted disposal capacity in the area is significantly underutilized and is more than sufficient to meet the current and reasonable future needs of the industry. The

extent of rebuttal evidence introduced by the Protestant is unprecedented for this type of docket. Thus, the Examiners conclude the proposed disposal well is not in the public interest and recommend Select's application be denied. A discussion of the evidence and the four required elements Texas Water Code §27.051(b) follows.

Public Interest

Background

The term "public interest" is not defined in either the Texas Water Code nor Statewide Rule 9, although the Texas Water Code repeatedly refers to the policies of the State that protect "the public interest." The Railroad Commission is the agency charged by the Legislature to regulate the production of oil and gas in the State of Texas, and the Texas Supreme Court has held that the Commission's application of the term "public interest," as used in §27.051(b)(1) of the Texas Water Code, was appropriately limited to matters related to oil and gas production, and did not include subsidiary issues like traffic safety or air pollution.¹⁶

The question of whether or not a particular well, in a particular location, and at a particular time is in the public interest can be complex and difficult to argue. In such cases, applicants and protestants offer varied evidence to argue different aspects of what may constitute "public interest." As a general matter, the parties typically agree that: (1) the safe and efficient production of hydrocarbons is in the public interest; and (2) the production of salt water and other waste fluids is a necessary consequence of hydrocarbon production; therefore, (3) the safe and efficient disposal of waste produced during hydrocarbon production is in the public interest. The parties typically disagree over whether a particular disposal well application is "safe" and/or "efficient" (that is, necessary).

Within the Commission's jurisdiction, applicants typically argue that "safe disposal" is accomplished by a facility's compliance with the Statewide Rules for well construction and by permit requirements for facility operational standards. That is, "safe disposal" is more properly accommodated not by the "public interest" requirement, but by the resource protection and financial assurance requirements of §27.051(b) (2 through 4) of the Texas Water Code.¹⁷ Protestants, on the other hand, may argue that a disposal facility is inherently unsafe if it is unsuitably located proximal to sensitive human receptors (e.g., homes, schools, or hospitals), sensitive environmental receptors (e.g., waterways, wetlands, or aquifers), or other existing physical conditions, especially those related to roadway traffic safety. Further, a local government opposing a disposal well application

¹⁶ See *RRC v. Texas Citizens For A Safe Future And Clean Water*, 336 S.W. 3d 619 (Tex. 2001).

¹⁷ See "Applicable Law" on page 3.

may offer evidence as to the inherent unsuitability of a particular location from the perspective of its own responsibilities and available resources.

The “efficient disposal” aspect of public interest is argued by the parties as a matter of whether in a particular area the current supply of disposal capacity is adequate to meet current and projected near-future industry demand for waste disposal capacity on a reasonable economic basis. Generally, an applicant argues more capacity is needed, while a protestant argues the available capacity is sufficient to meet the industry’s needs. An applicant will often argue that greater industry efficiency is obtained by increasing the supply of available disposal capacity, resulting in lower waste disposal costs, which, applicants argue, extend the economic life of producing wells, preventing waste and protecting correlative rights of mineral owners.

Both applicants and protestants struggle with quality and completeness issues regarding readily available public information as evidence to address the disposal market supply and demand conditions. From the perspective of the demand for disposal capacity (volume of waste generated) in a given area, the practical ability to estimate the current or future volume of water requiring disposal is very difficult for several reasons, including: (1) drilling permits may be issued, suggesting future production activity, but the wells may not be drilled; (2) the hydraulic fracture stimulation technology and practice continues to change, along with associated water needs and outcomes; (3) the volume of stimulation flowback fluids requiring disposal varies and is difficult to accurately predict; (4) the volume of produced water from an individual well is not reported to the Commission, except on an initial or annual basis following a potential test, thus there is not a timely mechanism to accurately estimate current or future volumes and (5) some produced water in an area may avoid the commercial disposal market altogether through recycling or through on-lease injection via non-commercial disposal wells or injected for enhanced recovery.

There are also uncertainties from the perspective of the supply of available disposal well capacity. Generally there is no reliable correlation between a well’s permitted disposal capacity (the maximum daily rate authorized by a permit), the functional capacity (the maximum sustainable disposal rate based on the mechanical limitations of the injection system and the injection formation), and the volume of waste that is actually disposed by injection into a formation. For example, the Commission may issue a disposal permit to a well for 25,000 bpd, but: (1) The well may or may not ever be drilled as disposal well permits do not expire, and so this capacity is carried but not utilized¹⁸; (2) The well may be

¹⁸ A prospective disposal well operator must obtain both a drilling permit and a permit to dispose of waste by injection. These applications are separate and distinct from one another. A drilling permit for an injection well expires after three years, and it is not necessary to obtain a drilling permit prior to applying for a disposal permit. Further, permits authorizing disposal by injection do not expire. Therefore, a disposal permit may be issued and held by an operator, or sold to another operator, before a drilling permit is ever obtained. Thus, the permitted capacity may be carried as a potential future

completed, but the mechanical configuration of the surface facilities and the hydraulic characteristics of the injection formation may not be capable of accepting the daily permitted fluid volume; (3) the functional capacity of the injection formation may decline over time, as observed by increasing injection pressures; (4) disposal well operators report monthly injected volumes on a single yearly Form H-10 report; and (5) for any given injection well, it is not routinely possible to interpret the difference between the permitted injection capacity and the actual injected volume as being attributable to mechanical causes or market conditions based on publicly-available information.

Considering these limitations when making a case for public interest, applicants typically attempt to demonstrate that the proposed well meets the need for the efficient disposal of produced waste by the presentation of evidence such as the following:

- The wait times at available disposal facilities are excessive and therefore costly (supply is not adequate to process demand in a timely, and therefore efficient, manner).
- The travel distance to available disposal facilities is excessive and therefore costly (supply is not adequate to process demand in a timely, and therefore efficient, manner).
- The permitted or available disposal capacity is not capable of disposing the generated waste (supply not adequate to meet demand).
- The available disposal capacity at some commercial disposal wells may, in fact, not be available to the general waste hauling public because of private business relationships, agreements, or decisions (there is a devolution of the commercial market into “private” and “public” segments that may result in some unmet disposal needs).
- Drilling permits issued and well completions approved indicating trends over time and the movement or expansion of development in a particular direction (current supply likely to be insufficient to meet demand in the near future).

Protestants, for their part, may offer evidence arguing the opposite.

This Case

The Examiners conclude the evidence in the record demonstrates that the use or installation of Select’s proposed disposal well is not in the public interest. By far, most of

capacity. In this case, Select has not yet applied for a drilling permit for the proposed well.

the three-day hearing was directed toward this topic, and the direct evidence of both parties demonstrate that excess, underutilized active commercial disposal capacity currently exists in the area and will likely continue to exist.

CGODWIN persuasively demonstrated the available disposal capacity in the area is markedly underutilized. The community members of CGODWIN undertook a novel survey of the existing disposal wells near the proposed Select well. Making 77 visits to 14 wells over more than a one-year period, they documented numerous instances of complete availability of the existing disposal wells. On only four instances were trucks observed to be waiting to unload, and never for more than 20 minutes. CGODWIN made paper and photographic records of its survey visits, and several of its members directly testified to their observations.

For Select, Mr. Metzler also visited nearby commercial disposal wells. He testified to wait times at only two of the 18 facilities visited, although the wait times were from one to two hours. No documentary evidence was offered in support of his observations. The Examiners find CGODWIN's testimony to be persuasive with regard to the current state of disposal capacity utilization in the area. Indeed, as indicated by Mr. Metzler's testimony, Select readily admits there is no current industry need for additional disposal capacity in the area:¹⁹

MR. GREGG: And to be clear, there is current sufficient capacity in this area currently, right?

MR. METZLER: Currently, yes.

This testimony is supported by Select's Exhibit No. 41, which tabulates reported disposal volumes for the 18 active commercial disposal wells within 20 miles of its proposed disposal well. The Examiners note the following combined daily average injection rates: 64,583 bpd in October 2014, 67,211 bpd in December 2014, and 38,738 bpd in September 2015. In October 2014 those wells injected about 16 percent of the current available capacity (400,000 bpd), and in September 2015 the utilization had fallen to about 10 percent.

Select's evidence is clear and unambiguous that this application relates to its own business interest, as Mr. Henley's testimony relates:²⁰

EXAMINER DUBOIS: In regards to the statement you just made, do I understand you correctly that Select as a waste

¹⁹ Tr. Vol. 1, pg. 120.

²⁰ Tr. Vol. 3, pgs. 213-214.

hauler does not have access to the disposal capacity?

MR. HENLEY: *No, sir, we – on any given day, we may or may not have access. My position is to grow my business which means developing pipe systems, disposal wells and marketing the trucks that we own. I need to be able to control that capacity to commit to long term contracts. That's really what our business model is, is to get that contracted capacity...*

EXAMINER DUBOIS: *You have a need for disposal capacity because you haul waste, right?*

MR. HENLEY: *Yes, sir.*

EXAMINER DUBOIS: *So if you weren't hauling waste, you wouldn't have that need. You might have a desire to be in that market, but you don't have that need.*

MR. HENLEY: *That's probably a fair statement. If I chose not to move produced water as part of my business model, then I wouldn't be, you know, working so hard to get disposal capacity.*

EXAMINER DUBOIS: *I was just trying to understand the statement: As a trucker or as a hauler, as someone who moves waste, your desire to have control over some of the disposal, to meet your needs.*

MR. HENLEY: *Yes, sir.*

Select operates a trucking service and disposal wells. This is not unusual, and, indeed, can bring certain efficiencies to the marketplace. However, Select has blurred the distinction between what is in the public interest as determined by factual conditions in the industrial sector—which apply to all disposal well operators in a particular area—and what is in its own private business interests. In such a case, the Examiners must consider evidence of the former and cannot consider the latter.

For example, Select identified 18 wells with a combined permitted disposal capacity of 375,000 bpd within a 20-mile radius of the proposed disposal well. However, Select voluntarily denies itself access to four of these wells (70,000 bpd combined capacity)

because they do not appear to meet Select's internal environmental standards. While it may be commendable that Select claims to hold and seeks to achieve a higher environmental standard, the Examiners cannot do so. All of these wells are authorized by the Commission pursuant to Statute and Rule for the commercial disposal of oil and gas waste. The Examiners acceptance of an argument based on a private company's own internal standards would effectively create a disparate standard outside of established rules and would result in permit-seekers being treated unequally in the same market. Further, Select chooses not to access eight of the nearby disposal wells (185,000 bpd combine capacity) because doing so would require its own trucks to travel through the City of Gonzales. Again, while it may be a commendable gesture to restrict its own trucks from traveling through the City of Gonzales, as a commercial disposal well operator Select cannot dictate or restrict the travel routes of independent waste haulers who seek access to Select's proposed disposal well.

The Examiners conclude that Select's claim that only 32,500 bpd of the Commission-permitted capacity of 400,000 bpd²¹ is currently available to its own trucks represents a private interest and is not relevant to establishing the public interest requirement of the Texas Water Code.

CGODWIN asserts that about 70 percent of the Eagle Ford Shale has been developed within a 20-mile radius of the proposed disposal well. Therefore, CGODWIN contends, the eventual rebounding of exploration activity will not exceed the currently available active or permitted disposal capacity in the area. The Examiners agree that the available active disposal capacity is more than sufficient to meet the industry's current and reasonably near-future disposal needs in this area. Further, there are existing disposal permits for wells that have yet to be drilled that may accommodate additional need in this area, if necessary. However, the Examiners believe Ms. Debrick underestimated the extent of current development of the Eagle Ford Shale in the area. In testimony, Ms. Debrick assumed wells based on 120-acre density and 800 to 1,000 foot between well spacing. However, the current field rules for the Eagleville (Eagle Ford-1) Field prescribe an optional 40-acre density and no between well spacing limitations.²² In this regard, the Examiners agree with Select.²³ Thus operators may attempt to drill and complete, at their own risk and reward, considerably more wells in the area than forecast by the Protestants.

²¹ 375,000 bpd identified by Select, plus 25,000 bpd from the NTG District Shiner SWD identified by CGODWIN.

²² See Oil & Gas Docket No. 01-0282089: Application of Burlington Resources O&G Co. LP., to Amend Field Rules for the Eagleville (Eagle Ford-1) Field, Atascosa, Dimmit, Gonzales, La Salle, McMullen, Wilson and Zavala Counties, Texas (Final Order entered on August 6, 2013).

²³ Select Exh. Nos. 42 through 45.

The evidence in the record indicates that at least part of the proposed disposal well tract is within the ETJ of the City of Gonzales. Based on 2014 census estimates, the population of Gonzales is 7,416.²⁴ The Texas Local Government Code §42.021(a)(2) establishes an ETJ for a city of this population to be one mile. CGODWIN's Exhibit No. 38 demonstrated the driveway of the proposed disposal well site tract is 4,917 feet from the posted city limits along US Hwy. 90A, and within the one-mile ETJ. Although Select objected to the admission of CGODWIN's Exhibit No. 38, it did not offer any contravening evidence to indicate at least part of the disposal well tract is outside of the Gonzales ETJ. On October 7, 2014, the Gonzales City Council approved Resolution No. 2014-114 opposing the proposed disposal well located in the City's ETJ. On two recent occasions, the Commission denied commercial disposal well applications within the ETJ of and opposed by Karnes City based on a lack of public interest.²⁵

The parties disagree on whether or not the proposed disposal well is located in a rural, residential, or neighborhood. Although outside of the Gonzales city limits, the area clearly exhibits a rural-residential character. Select acquired the property with a house on it after the passing of the previous owner(s). The property is surrounded on all sides by residential tracts of similar size and shape, some with more and some with less acreage. There are houses very close to the property line adjacent to the northwest and southeast property lines. In addition, there are about 50 to 60 houses within one-quarter mile of the proposed disposal tract.

Endanger Mineral Formations

The Examiners conclude the evidence in the record demonstrates that the use or installation of the injection well will not endanger or injure any oil, gas, or other mineral formation. CGODWIN did not present any evidence to the contrary. Nearby there is current development in the Eagle Ford Shale and historical production in the Austin Chalk Formation. There is limited historical production from the Buda Formation in the area. The proposed disposal interval in the Edwards and Glen Rose Formation are separated from the producing Formations by the intervening Del Rio Shale and Georgetown Limestone

²⁴ <http://quickfacts.census.gov/qfd/states/48/4830116.html>, accessed on January 26, 2016.

²⁵ See Oil & 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 (Final Order entered on May 7, 2013).

See Oil & Gas Docket No. 02-0285578: The Application of Supreme Vacuum Services, LLC Pursuant to Statewide Rule 9 for a Commercial Permit to Dispose of Oil and Gas Waste by Injection into a Porous Formation Not Productive of Oil or Gas, SWD Lease, Well No. 1, Eagleville (Eagle Ford-2) Field, Karnes County, Texas (Final Order entered on July 8, 2014).

Formations. The evidence in the record indicates these confining strata will prevent the migration of injected fluids out of the disposal interval.

There are no wellbores that penetrate the disposal interval within a one-quarter mile area of review. Within a one-half mile radius there are two wellbores, neither of which penetrate the disposal interval. The Examiners conclude there are no artificial conduits that may contribute to the migration of injected fluids out of the disposal interval.

Protection of Fresh Water

The Examiners conclude the evidence in the record demonstrates that, with proper safeguards, both ground and surface fresh water can be adequately protected from pollution. CGODWIN did not present any credible evidence to the contrary. The BUQW is at a depth of 1,000 feet, and the USDW is at an estimated 2,700 feet. The proposed well will be constructed with surface casing set to a depth of 2,750 feet and cemented to the surface. The deeper casing is intended to protect both the BUQW and USDW. In the event the Commission grants this permit, Select will need to obtain another surface casing letter from the GAU for the deeper casing, or Select will need to obtain approval for the deeper casing from the District Director.

The GAU concludes that geologic isolation occurs at a depth of 5,300 feet. A nearby well log indicates a very thick shale sequence from about 5,300 feet to about 7,500 feet below ground surface. This interval isolates the overlying fresh water zones from the underlying hydrocarbon-bearing zones, and, below that, the deeper disposal interval.

CGODWIN expressed concern that the long-string casing would not be adequately cemented. The Examiners find the proposed cementing program meets the requirements of Statewide Rule 13 (a)(4), Casing and Cementing.

There are no wellbores that penetrate the disposal interval within a one-quarter mile area of review. Within a one-half mile radius there are two wellbores, neither of which penetrate the disposal interval. The Examiners conclude there are no artificial conduits that may contribute to the migration of injected fluids out of the disposal interval.

Financial Responsibility

The Examiners conclude the evidence in the record demonstrates that the Applicant has made a satisfactory showing of financial responsibility. CGODWIN did not present any evidence to the contrary. Select holds a current Form P-5 Organization Report (Operator No. 765602), and Select has filed a \$50,000 bond with the Commission for financial assurance.

FINDINGS OF FACT

1. Select Energy Services, LLC seeks authority pursuant to 16 Tex. Admin. Code § 3.9 ("Statewide Rule 9") to dispose of oil and gas waste by injection into the Edwards and Glen Rose Formations, which are not productive of oil or gas, at its Select Gonzales SWD Lease, Peach Creek (Austin Chalk) Field, Gonzales County, Texas.
2. Notice of the application was published in the *Gonzales Inquirer*, a newspaper of general circulation in Gonzales County, on May 17, 2013, February 21, 2014, and November 7, 2014.
3. On May 23, 2013, February 14, 2014, and January 23, 2015, notice of the application was mailed to the Gonzales County Clerk, the surface owner of the disposal tract, the owner of all adjoining surface tracts, and all operators of wells within a one-half mile radius of the proposed disposal well's surface location.
4. The application is protested.
 - a. Citizens of Gonzales Opposing Disposal in Neighborhoods ("CGODWIN"), an organization of persons in the community, including several owners of surface tracts adjoining the proposed disposal tract, protest the application.
 - b. Gonzales City Council Resolution No. 2014-114, dated October 7, 2014, states the City's opposition to the application.
 - c. Gonzales County Judge David Bird and County Commissioners Donnie Brzozowski and Kenneth "Dell" Whiddon personally oppose the application.
 - d. The Gonzales County Underground Conservation District opposes the application.
5. Notice of this hearing was given to all parties entitled to notice at least ten days prior to the date of the hearing.
6. The use or installation of the injection well is not in the public interest.
 - a. There are 19 active commercial disposal within a 20-mile radius of the proposed site, with a combined permitted disposal capacity of 400,000 barrels per day.

- i. The combined daily average injection volumes for 18 of the commercial disposal wells within a 20 mile radius of the proposed well decreased from 64,583 bpd in October 2014, to 38,738 bpd in September 2015.
 - ii. In October 2014 those 18 wells injected about 16 percent of the current available capacity (400,000 bpd), and in September 2015 the utilization had fallen to about 10 percent.
 - iii. The low utilization is confirmed by site visits in 2014 and 2015.
 - b. The Commission has issued an additional 14 commercial disposal permits for wells in Gonzales County, which have not yet been drilled or become active.
 - i. Ten of those 14 permits allow for a combined disposal capacity of 245,000 barrels per day.
 - ii. Five of those 14 permits are located east of Gonzales and within a 10-mile radius of the proposed well.
 - c. Five of the permitted but undrilled or inactive wells are located within a 10 mile radius of the proposed well.
 - d. The proposed disposal well tract is located in a residential area.
 - i. The proposed disposal well site is located on a tract that includes a former residence.
 - ii. There are residential tracts adjoining the disposal tract on all sides.
 - e. The proposed disposal well tract is located within the extra-territorial jurisdiction ("ETJ") of the City of Gonzales.
7. The use or installation of the Subject Wells will not endanger or injure any oil, gas, or other mineral formation.
 - a. The proposed disposal well is located three miles west of active development of the Eagle Ford Shale, and historic production from the Austin Chalk Formation occurs in the area. There is limited historical production from the Buda Formation in the area.
 - b. The proposed disposal interval in the Edwards and Glen Rose Formations is separated from the producing Austin Chalk, Eagle Ford and Buda Formations by the intervening Del Rio Shale and Georgetown Limestone Formations.

- c. The confining strata will prevent the migration of injected fluids out of the disposal interval.
8. With proper safeguards, both ground and surface fresh water can be adequately protected from pollution.
 - a. The base of usable quality water ("BUQW") is at a depth of 1,000 feet, and the base of underground sources of drinking water ("USDW") is at an estimated 2,700 feet.
 - b. The proposed well will be constructed with surface casing set to a depth of 2,750 feet and cemented to the surface.
 - c. The shallow groundwater intervals are isolated from deeper producing and disposal intervals by a thick shale stratum from about 5,300 feet to about 7,500 feet below ground surface.
 - d. There are no wellbores that penetrate the disposal interval within one-half mile radius of the proposed disposal well.
 - e. The proposed casing and cementing program meets the requirements of Statewide Rule 13 (a)(4), Casing and Cementing. 16 Tex. Admin. Code § 3.13(a)(4).
9. The Applicant has made a satisfactory showing of financial responsibility.
 - a. Select Energy Resources, LLC holds a current Form P-5 Organization Report (Operator No. 765602)
 - b. Select Energy Resources, LLC has filed a \$50,000 bond with the Commission for financial assurance.

CONCLUSIONS OF LAW

1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas. Tex. Nat. Res. Code § 81.051.
2. Findings of fact may be based only on the evidence and on matters that are officially noticed. Tex. Gov't Code §2001.141 (b).
3. All notice requirements have been satisfied. 16 Tex. Admin. Code § 3.9.
4. The use or installation of the injection well is not in the public interest. Texas Water Code § 27.051(b)(1).

5. The use or installation of the Subject Wells will not endanger or injure any oil, gas, or other mineral formation. Texas Water Code § 27.051(b)(2).
6. With proper safeguards, both ground and surface fresh water can be adequately protected from pollution. Texas Water Code § 27.051(b)(3).
7. Select Energy Resources, LLC has made a satisfactory showing of financial responsibility. Texas Water Code § 27.051(b)(4).
8. Select Energy Resources, LLC has not met its burden of proof and its application does not satisfy the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 46.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiners recommend the Commission enter an order denying the application of Select Energy Services, LLC, for authority to dispose of oil and gas waste by injection at its Gonzales SWD Lease, Well No. 1, in the Peach Creek (Austin Chalk) Field, Gonzales County, Texas.

Respectfully submitted,



Paul Dubois
Technical Examiner



Randall Collins
Administrative Law Judge