

OIL AND GAS DOCKET NO. 01-0273123

THE APPLICATION OF CATARINA SALT WATER DISPOSAL, LLC FOR COMMERCIAL DISPOSAL AUTHORITY PURSUANT TO STATEWIDE RULE 9 FOR THE CAT-FOWLERTON SWD LEASE, WELL NO. 1, EAGLEVILLE (EAGLE FORD-1) FIELD, LA SALLE COUNTY, TEXAS

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THE APPLICATION OF CATARINA SALT WATER DISPOSAL, LLC FOR COMMERCIAL DISPOSAL AUTHORITY PURSUANT TO STATEWIDE RULE 9 FOR THE CAT-FOWLERTON SWD LEASE, WELL NO. 2, EAGLEVILLE (EAGLE FORD-1) FIELD, LA SALLE COUNTY, TEXAS

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

APPEARANCES: **REPRESENTING:**

APPLICANT:

Stephen Fenoglio
Kerry Pollard
Manuel Gonzalez
Richardo Daniel Guevara

Catarina Salt Water Disposal, LLC

PROTESTANTS:

Clay Nance
Glynda Mercier
Larry Carlisle
Troy Hollan

Troy Hollan

PROCEDURAL HISTORY

Application Filed:	May 31, 2011
Protest Received:	July 29, 2011
Request for Hearing:	October 4, 2011
Notice of Hearing:	November 1, 2011
Hearing Held:	January 12 and 25, 2012

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Transcript Received:	February 13, 2012
Closing Statements Received:	March 15, 2012
Proposal for Decision Issued:	March 22, 2012

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

Catarina Salt Water Disposal, LLC ("Catarina") requests commercial disposal authority pursuant to Statewide Rule 9 for the Cat-Fowlerton SWD Lease, Well Nos. 1 and 2, Eagleville (Eagle Ford-1) Field, La Salle County, Texas.

Notices of the subject applications were published in the *Frio-Nueces Current*, a newspaper of general circulation in La Salle County, on May 5 & 26, 2011, for Well No.2 and Well No. 1, respectively. Notices of the applications were sent to the La Salle County Clerk, offset operators within 1/2 mile and the surface owners of each tract which adjoins the disposal tract on May 4, 2011.

The applications are protested by a surface owner adjacent to the tracts on which the proposed disposal wells are located.

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

The proposed Well No. 1 and disposal facility are located on the south 10 acres of a 27 acre tract that is adjacent to, and north of, State Highway 97. Well No. 2 is located on the north 10 acres of a 29 acre tract that is adjacent to, and north of, State Highway 97. The tracts are in a rural area and are situated approximately 2 miles southwest of the town of Fowlerton, Texas. Catarina plans to drill new injection wells down to 5,800 feet. The wells will have 8 5/8" surface casing set at 4,050 feet that will be cemented to the surface with 1,360 sacks of cement. Catarina proposes to run 5 1/2" production casing down to 5,800 feet that will be cemented to the surface with 985 sacks of cement. The wells will be equipped with 2 7/8" tubing and packer set at 4,650 feet (See attached Catarina Exhibit Nos. 11 and 20 - Wellbore Sketches).

The proposed disposal interval is the Wilcox formation between 4,700 feet and 5,700 feet. A cross-section across an area of approximately three miles demonstrates that the proposed Wilcox disposal interval is continuous and has approximately 150 feet of net pay from numerous sands. The interval is suitable for disposal and is used for disposal in other area wells. There is no Wilcox production located within 5 miles of the proposed disposal wells. Additionally, there is over 200 feet of shale above the proposed disposal interval, which will serve to prevent the migration of injected fluids out of the disposal

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interval.

Catarina requested authority to dispose of a maximum of 25,000 barrels of saltwater and RCRA exempt waste per day per well with a maximum surface injection pressure of 2,350 psig. Since the wells are not mechanically capable of disposing of 25,000 barrels per day, the examiners recommended a maximum disposal rate of 15,000 barrels per day per well. Catarina did not consider this recommendation to be adverse.

The Texas Commission on Environmental Quality ("TCEQ") recommends that usable-quality ground water be protected to a depth of 3,900 feet below the land surface. The base of the underground source of drinking water ("USDW") is 4,650 feet. Catarina submitted a TCEQ letter dated June 18, 2011, which stated that injection into the proposed injection interval will not harm usable quality water. Catarina noted that although the base of the USDW is at 4,650 feet, there is over 200 feet of shale between the proposed disposal interval and the first possible USDW sand. There are no wells located within the 1/4 mile radius or the 1/2 mile radius of review for the proposed disposal wells.

The proposed Catarina facility is located in the northeastern portion of La Salle County. There are seven permitted commercial disposal wells in La Salle County within a 20 mile radius of the proposed facility. To date, no P-18s or H-10s have been filed showing that the permitted wells are active and Catarina believes that the majority of the wells have not yet been drilled. In the two adjoining counties of Frio and McMullen, there is one active private disposal well in each county within a 20 mile radius of the proposed facility. Catarina stated that there are two to six hour wait times at the existing facilities in the area. Catarina contends that the use of the proposed disposal wells will reduce truck traffic, travel time and miles traveled, resulting in reduced costs to operators.

The Eagle Ford development core area encompasses all of La Salle County and the two adjoining counties of Frio and McMullen. Catarina submitted a map depicting over 200 permitted and 100 completed Eagle Ford formation horizontal wells. The wells are being fraced with 100,000 barrels of freshwater and, with the large number of permitted locations, this will create a tremendous volume of frac flow-back water. Catarina opined that the Eagle Ford trend wells will produce significant volumes of frac and produced water. Catarina believes that additional disposal facilities are necessary to accommodate the Eagle Ford development that is expected in this part of La Salle County.

The Facility

The area surrounding the proposed injection facility is rural ranching and farming land. Access to the disposal facility will be off of State Highway 97 which is a paved two lane public highway. The surface facility will comply with all permit conditions requested by the Commission staff. Catarina's affiliated company, Titan Vacuum Services, plans to operate approximately 20 saltwater disposal trucks at the proposed facility. At an average

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injection rate of 5,000 BWPD per well, there will be approximately 80 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.

Catarina submitted a TxDOT design of the Seven Mile Creek Bridge. The bridge has a road grade elevation of 316 feet with a creek bottom elevation of 300 feet. The bridge was designed for a usual high water mark of 310 feet. The design did note that the extreme high water mark was 318 feet, which occurred in 1932. Although the injection wells have a ground elevation of 309 feet and are contained within the 100-year Frio River flood plain elevation of 318 feet, the injection facility will be off of State Highway 97 at an elevation of 318 feet and will be surrounded by a 5 foot containment wall.

Mr. Guevara, Catarina's owner, is also the owner of Titan Vacuum Services, co-owner of Presidio SWD and manager of J & R Contractors. These three entities operate six saltwater disposal facilities in the South Texas area. Mr. Guevara submits that he has the expertise to build and manage the proposed facility. Catarina has a current approved Form P-5 (Organization Report), a posted \$25,000 financial assurance bond and no pending Commission enforcement actions. Catarina also maintains a \$1MM general liability and \$5MM umbrella insurance policies.

Protestants' Evidence

The protestant is a surface owner adjacent to, and south of, the proposed disposal tracts. He is primarily concerned that a spill could contaminate the surface water, as drainage from the facility would flow into Seven Mile Creek and then into the Frio River. Downstream, the Frio River flows into Choke Canyon Reservoir, which is the water supply for the city of Corpus Christi, Texas. He has personally witnessed the flooding of Seven Mile Creek and believes that future flooding of the creek would inundate the proposed disposal well locations.

The protestant's expert engineering witness submitted a flood frequency report that incorporated the new USGS Atlas for rainfall events. The report was based on storm gauges located on the Frio River at Tilden and Derby, Texas. The Derby Gage is located 27 miles upstream and the Tilden Gage is located 17 miles downstream of the proposed disposal well sites. The report acknowledged that the extreme high water mark elevation at the bridge over Seven Mile Creek was 318 feet, which occurred in 1932. The report analyzed a July 2002 flood event on the Frio River. This flood event resulted in a 30 foot rise in the elevation of the Frio River and a river flow of 30,000 cubic feet per second at the Tilden Gage. The 30 foot rise in elevation would equate to a water mark elevation at the bridge over Seven Mile Creek of 316 feet.

The USGS Atlas shows that there is a circular isoline covering the proposed facility location and a rainfall event of 6-hour duration for a 100-year storm would result in over 8 inches of rainfall. The expert calculated that there is a 10% chance that the July 2002 flood event will be exceeded anytime rainfall begins. The expert also opined that the

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increased precipitation would result in higher peak discharges along the Frio River, which would result in a higher surface water elevation and an increase in the amount of land that is inundated.

EXAMINERS' OPINION

The examiners recommend that the applications for commercial disposal authority be approved. Catarina has established:

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

The wells will be completed in a manner which will protect usable-quality water resources and injected fluids will be confined to the injection interval. The proposed disposal wells will have cement behind the production casing to surface and there is a greater than 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 4,700 feet and 5,700 feet. Finally, there are no wellbores located within the 1/4 mile and 1/2 mile area of review.

Approval of the application is in the public interest. The Eagle Ford development core area encompasses all of La Salle County and the two adjoining counties of Frio and McMullen. Catarina has shown that the proposed disposal wells are necessary to provide needed capacity for disposal of frac and produced water from numerous Eagle Ford wells to be drilled and produced within La Salle and surrounding counties. There are seven permitted commercial disposal wells in La Salle County within a 20 mile radius of the proposed facility. To date, no P-18s or H-10s have been filed showing that the permitted wells are active. The proposed disposal wells are closer to a vast majority of recently permitted wells than any other commercial disposal well and the existing commercial disposal wells in the area have a limited capacity with two to six hour wait times. Use of the proposed disposal wells will reduce truck traffic, travel time and miles traveled, resulting in reduced costs to operators, which will lower the economic limit of wells and thereby ultimately increase total production.

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

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highway that provides access to the facility. 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. Although the injection wells have a ground elevation of 309 feet and are contained within the 100-year Frio River flood plain elevation of 318 feet, there are already numerous permitted and completed Eagle Ford wells in the area that are located within the 100-year Frio River flood plain. In addition, there is no Commission restriction that prevents wells from being located in a flood plain.

FINDINGS OF FACT

1. Notice of these applications and hearing was provided to all persons entitled to notice. Notices of the subject applications were published in the *Frio-Nueces Current*, a newspaper of general circulation in La Salle County, on May 5 & 26, 2011, for Well No.2 and Well No. 1, respectively.
2. Notices of the applications were sent on May 4, 2011, to the La Salle County Clerk, offset operators within 1/2 mile and the surface owners of each tract which adjoins the disposal tracts.
3. The proposed injection into the Cat-Fowlerton SWD Lease, Well Nos. 1 and 2, will not endanger useable quality water.
 - a. The TCEQ recommends that usable-quality ground water be protected to a depth of 3,900 feet below the land surface.
 - b. The wells will have 8 5/8" surface casing set at 4,050 feet that will be cemented to the surface with 1,360 sacks of cement.
 - c. There is over 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 Cat-Fowlerton SWD Lease, Well Nos. 1 and 2, will not endanger production from other oil, gas or mineral bearing formations.
 - a. Catarina plans to drill new injection wells down to 5,800 feet.
 - b. Catarina proposes to run 5 1/2" production casing down to 5,800 feet that will be cemented to the surface with 985 sacks of cement.
 - c. The wells will be equipped with 2 7/8" tubing and packer set at 4,650 feet.

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- d. There are no wells located within the 1/4 mile radius or the 1/2 mile radius of review for the proposed disposal wells.
- 5. Use of the Cat-Fowlerton SWD Lease, Well Nos. 1 and 2, as commercial disposal wells 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. There are seven permitted commercial disposal wells in La Salle County within a 20 mile radius of the proposed facility. To date, no P-18s or H-10s have been filed showing that the permitted wells are active.
 - b. In the two adjoining counties of Frio and McMullen, there is one active private disposal well in each county within a 20 mile radius of the proposed facility.
 - c. There are two to six hour wait times at the existing facilities in the area. The use of the proposed disposal wells will reduce truck traffic, travel time and miles traveled, resulting in reduced costs to operators.
 - d. The Eagle Ford development core area encompasses all of La Salle County and the two adjoining counties of Frio and McMullen. There are over 200 permitted and 100 completed Eagle Ford formation horizontal wells.
 - e. The Eagle Ford trend wells are being fraced with 100,000 barrels of freshwater and, with the large number of permitted locations, this will create a tremendous volume of frac flow-back water.
 - f. 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 expected in this part of La Salle County.
- 6. Catarina has a current approved Form P-5 (Organization Report), a posted \$25,000 financial assurance bond and no pending Commission enforcement actions. Catarina also maintains a \$1MM general liability and \$5MM umbrella insurance policies.

CONCLUSIONS OF LAW

- 1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.

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2. All things necessary to give the Railroad Commission jurisdiction to consider this matter have occurred.
3. Approval of the applications will not harm useable quality water resources, will not endanger oil, gas, or geothermal resources, will promote further development in this area of La Salle County and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.
4. Catarina Salt Water Disposal, LLC has met its burden of proof and its applications satisfy 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 applications of Catarina Salt Water Disposal, LLC for commercial disposal authority for the Cat-Fowlerton SWD Lease, Well Nos. 1 and 2, be approved, as set out in the attached Final Orders.

Respectfully submitted,

Richard D. Atkins, P.E.
Technical Examiner

Michael Crnich
Legal Examiner