

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

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**IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:**

**OWL SWD OPERATING, LLC APPLICATION FOR
AUTHORIZATION TO INJECT**

Case No. 15723

**FINDINGS OF FACT, LEGAL
ANALYSIS, AND CLOSING ARGUMENTS**

The New Mexico State Land Office by its undersigned attorney, Katherine Moss, files this Proposed Findings of Fact, Legal Analysis and Closing Arguments, following a hearing in the above matter held on August 1, 2, and 4, 2017, opposing the Application of OWL SWD Operating, LLC (“OWL”) for an order approving the Bobcat SWD No. 1 for the injection of produced water into the Yates Seven Rivers formation in Lea County, New Mexico at the intervals, pressures, volumes, and rates detailed in OWL’s Application.

I. FACTS AND PROCEDURE

OWL filed an application to build a Salt Water Disposal Well (“SWD”) well in Lea County, the Bobcat SWD No. 1 well. This well would replace an existing SWD well the, Maralo Sholes B 25 No. 1, which is older and for which the Oil Conservation Division (“OCD”) Compliance and Enforcement Bureau has applied for a determination that the operator is in violation of OCD Rules and Regulation. The OCD, the State Land Office (“SLO”), and the City of Jal oppose the application and provided prehearing statements, presented witnesses, and provided post hearing legal briefs. OWL provided a prehearing brief, presented witnesses and filed a post hearing legal brief.

A. OWL's Proposed Injection Will Degrade Protectable Waters of New Mexico.

The region in which OWL proposes to dispose of produced water, at a rate of more than 30,000 barrels a day over a 20-40 year period, was once filled with saltwater. In recent history the water has had low chloride levels indicating the presence of fresh water. There is protectable water, containing fewer than 10,000 mg/l of total dissolved solids, as close as 1.5 miles from the proposed inject site where fresh water has flushed the original seawater out of the region. (Reporter's Transcript of Proceedings ("Transcript"), Volume ("Vol.") 1, page 12; lines 13-18, Transcript Vol. 1, page 9; lines 19-23). Anchor Holm testified at the hearing for the State Land Office as an expert in petroleum engineering and an expert in groundwater engineering. Through Mr. Holm and his use of SLO Exhibit 2, showing groundwater quality in the proposed injection area, the SLO introduced evidence that shows chlorides in this area are significantly lower than the original seawater levels and demonstrating that freshwater is flowing through the proposed injection area. Samples of groundwater quality in the proposed injection area show chlorides in the water well below the original seawater levels that were in the rocks in the area and include samples that are protectable water.

According to Mr. Holm elevated chloride levels further to the northwest are likely the result of produced water injected at the interval that OWL proposes. Exhibit 2 clearly demonstrates that the water injection wells which brought produced water from another section outside the area, have affected chloride levels in the area. (Transcript Vol. 1, page 11; lines 22-23 and page 12; lines 1-3).

According to Mr. Holm the source of the fresh water that has lowered the chloride levels in this area is the recharge from the Capitan Reef/Capitan Reef Complex. Of particular importance in this case is that the Capitan Reef Complex reaches a structural high "just to the right of the

wellbore identified as ID 267 not far to the east of the proposed injection area.” (Transcript Vol. 1, page 21). According to Mr. Holm the Capitan Reef may well be within 100 to 300 feet of the open hole in the Maralo Shoals B. No. 2. Evidence further shows that there may be faults in this area which would allow vertical communication to the Capitan Reef Seven Rivers Yates formations. In addition, the limestone in the area is porous and highly permeable. Evidence that there is protectable water that could be impacted by the proposed well was also introduced by the OCD through the testimony of Phillip Goetze qualified as an expert in geology and hydrology. Mr. Goetze testified that there is “historical information . . . that would suggest that there are influxes or holdings of protectable water” in the area where the SWD well is proposed. (Transcript Vol. 1, page 132; lines 4-6). The totality of this evidence demonstrates a connection between the proposed injection area and the Capitan Reef Yates Seven Rivers formations and further suggests that disposal into the proposed site will degrade protectable waters in New Mexico.

B. OWL’s Proposed Injection Well Will Interfere with Correlative Rights Including Mineral Rights on State Trust Lands.

The area in which OWL proposes to inject is an oil and gas producing formation. At the hearing it was established that there are at least seventeen (17) wells in the area. Both OCD expert Mr. Goetze and Mr. Holm testified at the hearing concerning the potential impact of the proposed injection on correlative rights and the possibility of waste. (Transcript Vol. 3 page 157; lines 7-12). The SLO has mineral rights including oil and gas reserves in this area which it has a fiduciary duty to protect for its beneficiaries. N.M. Const., art. XII, § 12, XIII, § 2, art. XXI, § 9; and NMSA 1978, §§ 19-1-1 et seq. The SLO has identified nine oil or gas wells that have been drilled on state trust land within the one mile buffer from the proposed Bobcat SWD No. 1 in the Yates Seven Rivers formation.

Mr. Goetz testified that the relationship between increased disposal rates in the existing Maralo Sholes B 25 No. 1 well indicates that the permitted disposal well has affected production and may be interfering with correlative rights. (Transcript Vol. 1, page 170). The SLO owns mineral rights within the area that, if the proposed disposal well is permitted, will be negatively impacted.

II. LEGAL ANALYSIS

Applicant, as the moving party, bears the burden in this matter and has failed to meet that burden. Proceedings in administrative agencies are subject to the customary common-law rule that the moving party has the burden of proof which requires movant to establish by a preponderance of evidence that it is entitled to relief. *See Dick v. City of Portales*, 119 NM 472, 863 P.2d 1093 (1993); *See Int'l Minerals and Chemical Corp. v. New Mexico Pub. Serv. Comm'n*, 81 N.M. 280, 283, 466 P.2d 557, 560 (1970) (reversed on other grounds) (“although the statute does not specifically place any burden of proof on Complainant, the courts have uniformly imposed on administrative agencies the customary common-law rule that the moving party has the burden of proof”). *See Davis on Administrative Law*, Section 16.9 at 256 (“One can never prove a fact by something less than a preponderance of the evidence”) (emphasis in original). *See Re Public Southwestern Pub. Serv. Co.*, Case No. 2678, P.U.R. Slip Copy, 1997 WL 78696 (NMPUC) *11. Here, OWL has failed to show by a preponderance of evidence that the proposed disposal well will not impact protectable waters of New Mexico. It has introduced evidence which is dependent on computer modeling which is not sufficient to prove that the waters of the Capitan Reef Seven Rivers Formation will not be impacted. “The New Mexico Oil Conservation Commission has determined that modeling while useful must be viewed with “careful scrutiny.” *See Application of Pronghorn SWD System for Salt Water Disposal*, Case No. 10693, Order No. R-9913. On cross

examination OWL's expert Chad E. Kronkowsky testified that the modeling method used was a "Monte Carlo Method" (Transcript Vol. 1, page 33; line 20-25). He described this method as having "a margin of error," "only valid if you have the geology" and "difficult to do." (Transcript Vol. 1, page 34; lines 1-11).

OWL's expert, Neil Blandford, did not even know that the standard for foreseeable beneficial use is 200 years. (Transcript Vol. 1, page 131; lines 16-25.). This is significant because the State Engineer has defined protectable underground water as all waters in the State of New Mexico containing 10,000 milligrams/liter or less of total dissolved solids ("TDS") *where there is a present or reasonably foreseeable beneficial use that would be impaired by contamination.* (Emphasis added). "Although not formally defined, the term "reasonably foreseeable" has been taken to mean a time period of not less than 200 years in the future, and in other instances to mean much longer times (thousands of years)." (See OCD Website). OWL did not even attempt to show by a preponderance of evidence that the water in this area will not be needed for drinking in the next 200 years. Moreover, the attorney for the City of Jal, Michael Newell, through questions he asked of the witnesses, demonstrated a likelihood that the City of Jal will need the water in this area for drinking in much less than 200 years.

The importance of ground water protection in New Mexico is emphasized in the Environmental Improvement Act the purpose of which is to: "to ensure an environment that in the greatest possible measure will confer optimum health, safety, comfort and economic and social well-being on its inhabitants . . . as well as those yet unborn from health threats posed by the environment." Section 74-1-2. (See NMSA §§ 74-1-1 – 75-12-10) (Emphasis added). The decision maker in this hearing must consider that clean water is essential to the optimum health of future generations. There is no need for this decision maker to balance preserving protectable waters

with the need of OWL to safely dispose of waste, because OWL may safely dispose of waste by drilling further down and disposing into the Devonian. In this way the disposal will take place without threatening protectable water.

A. OCD Should Not Grant the Proposed Disposal Well Because the Disposal Area is Connected to a Zone Containing Waters Having Total Dissolved Solids With Concentrations of 10,000 mg/l or Less. This is Not and Should Not Be Determined to Be an Exempted Aquifer.

Under OCD Rules and Regulations the division shall not permit disposal into zones containing waters having total dissolved solids with a concentration of 10,000 mg/l or less of total dissolved solids, where there has been an objection, and where the aquifer is not exempt. *See* 19.15.26.8 C NMAC. Here, there are objections to the proposed disposal well by OCD, the SLO, and the City of Jal. The evidence shows communication between the zone in which OWL proposes disposal and areas of protectable water.

B. The Proposed Well Should Not Be Permitted Because It Would Contribute to Water Contaminant Levels in Excess of the Federal Standard.

The 10,000 mg/l total dissolved solids threshold comes from the EPA's definition of "underground sources of drinking water" (also known as "protectable waters") under the Safe Drinking Water Act. (*See* 40 C.F.R. 144.3). In issuing SWD permits, the OCD acts as a constituent agency under the New Mexico Water Quality Act, under which a constituent agency shall not issue a permit for the discharge of any water contaminant if it would "contribute to water contaminant levels in excess of any state or federal standard," as measured at "any place of withdrawal of water for present or reasonably foreseeable future use." (*See* NMSA 1978 § 74-6-5). Because the proposed injection would contribute to water contaminate levels in excess of the federal standard at a place of withdrawal of water at present or reasonably foreseeable future use, OWL's application should be denied.

III. PROTECTABLE WATERS

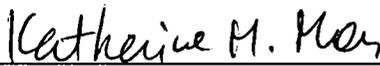
The law requires much more than the evidence presented by OWL in support of its application considering the impact on water over the next twenty years. (According to OWL's experts the modeling could be used to predict as far as forty years into the future.) The City of Jal did not present evidence at the hearing but the attorney for the City of Jal made clear through his questions at the hearing, and in his post-hearing brief, that it is the position of the City of Jal that it may need the water impacted by disposal into the proposed injection site well within the "foreseeable future."

Although there may be greater expense to OWL, in drilling deeper and into the Devonian, the profits from disposing of produced water in the amounts presented at the hearing will be highly profitable even with this additional expense.

IV. CONCLUSION

The SLO opposes the Bobcat SWD #1 on the basis that it will interfere with correlative rights on SLO lands and on the basis that the injection proposed by OWL will pollute protectable waters. The SLO respectfully requests that the OCD deny OWL SWD Operating LLC's Application for Authorization to Inject.

Respectfully submitted,


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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing pleading was served upon the following counsel of record this 26nd day of September, 2017 via email:

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