



State of New Mexico  
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT  
ENVIRONMENT DEPARTMENT  
OFFICE of the STATE ENGINEER

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July 8, 2022

Honorable Representative Patricia A. Lundstrom  
Chair, Legislative Finance Committee  
Via email to [patricia.lundstrom@nmlegis.gov](mailto:patricia.lundstrom@nmlegis.gov)

*Re: Update on Implementation of the Produced Water Act*

Dear Chairwoman Lundstrom,

During the Legislative Finance Committee meeting on May 19, 2022, several legislators expressed interest in the reuse of produced water from the oil and gas sector. Produced water reuse is one important component of our discussions and actions to address water scarcity as New Mexico faces a third consecutive year of severe drought and climate science projects greater water shortages in the future.

The Energy, Minerals and Natural Resources Department (EMNRD) and New Mexico Environment Department (NMED) work closely together on produced water management issues within each agency's jurisdiction under the Produced Water Act (House Bill 546, 2019 Regular Session) (the Act). EMNRD and NMED also coordinate with the Office of the State Engineer (OSE) on produced water issues under OSE's purview, as appropriate.

The Act went into effect on July 1, 2019. HB546 amended the New Mexico Oil and Gas Act, NMSA 1978, Sections 70-2-1 to -39, and the New Mexico Water Quality Act, NMSA 1978, Sections 74-6-1 to -17, and created the Produced Water Act, NMSA 1978, Sections 70-13-1 to -5. The Produced Water Act:

- Defines "treated water" or "treated produced water" as produced water that is reconditioned by mechanical or chemical processes into a reusable form.
- Clearly defines jurisdictional authority between NMED and EMNRD, with produced water use in the oil and gas industry regulated by EMNRD and all other uses regulated by NMED.
- Affirmatively requires state permitting for any use outside oil and gas operations.
- Clarifies responsibility for the proper handling of produced water, including liability for spills.
- Removes legal obstacles to recycling produced water in oil and gas operations.
- Restores EMNRD Oil Conservation Division's (OCD) administrative penalty authority, subject to statutory maximum dollar amounts, effective January 1, 2020; and
- Requires the New Mexico Water Quality Control Commission (WQCC) to adopt regulations, to be implemented by NMED, for the "discharge, handling, transport, storage, and recycling or treatment of produced water or byproduct thereof outside the oilfield."

Over the past three years, active implementation of the Act has accelerated produced water reuse in the oil field, prompted several important regulatory changes adopted by the New Mexico Oil Conservation Commission (OCC), and propelled New Mexico to lead the nation in research related to the reuse of produced water outside of the oil and gas sector. Additional implementation updates from each of our agencies include, but are not limited to, those summarized below:

**EMNRD**

1. In 2020, the OCC revised its Oil and Gas Act rules to incorporate the Act’s delineation of agency jurisdiction over the reuse of produced water in the oil and gas industry.
2. The OCC also adopted a new rule requiring oil and gas well operators to report the amount and types of water used in hydraulic fracturing. The categories of water include produced water and water other than produced water, with the latter further subdivided into three categories, (TDS > 10,000 mg/L), (TDS 1,000-10,000 mg/L), water (TDS less than 1,000 mg/L).
  - a. Those rules went into effect on October 13, 2020 and require operators to file their reports within 45 days of completion activity.
  - b. Prior to these changes the OCD did not have data regarding the volumes and types of water used in oil and gas completions operations.
3. EMNRD developed a publicly available database to tabulate the data from the water use reports as was required by the OCC rule. Midway through 2022, 95.4% of all reported completions used zero barrels of water with TDS less than 1,000 mg/L, an increase of 8.9% from 2021. Further review of the database shows that operators are now relying heavily on produced water, brackish and saline water for drilling and completion. Since the Act went into effect, use of water with TDS less than 1,000 mg/L declined from 23% in 2020 to 3% in 2022, while produced water use increased from 48% in 2020 to 62% in 2022.
  - a. Committee members and the general public can search the water use reports at <https://wwwapps.emnrd.nm.gov/OCD/OCDPermitting/Data/WaterUseReports/WaterUseReports.aspx>.
  - b. The table below presents the data described above.

Year	Produced Water	TDS < 1K mg/L	TDS 1-10K mg/L	TDS > 10K mg/L	Total Water
2022	2,271,942,561 61%	122,965,572 3.3%	980,271,907 26.7%	296,880,946 8.1%	3,672,060,986
2021	7,245,217,615 49.6%	1,622,424,826 11.1%	4,898,172,712 33.5%	848,488,666 5.8%	14,614,303,819
2020	1,326,257,946 48.1%	625,872,706 22.7%	799,614,290 29.0%	3,374,868 0.1%	2,755,119,810

(Volumes reported in gallons of water) (Percentage of use per reporting year)

4. The OCD has historically regulated produced water through several existing rules:
  - a. Storage of produced water: 19.15.17 NMAC (2013) and 19.15.34 NMAC (revised in 2020)
  - b. Disposal of produced water: 19.15.26 NMAC (revised 2018) and 40 CFR Part 144 Safe Drinking Water Act
  - c. Releases and Remediation: 19.15.29 NMAC (revised 2020) and 19.15.30 NMAC (revised 2008)

5. Finally, in 2021 the OCC revised its rules on oilfield releases to make major and minor releases, including releases of produced water, subject to enforcement actions that can require operators to take remedial actions and may include issuance of civil penalties.

#### **NMED**

1. Hosted five public engagement meetings on produced water reuse in 2019, in coordination with EMNRD and OSE, and posted a summary of public input, available at <https://www.env.nm.gov/new-mexico-produced-water/public-participation-2/>.
2. Serves as the lead for technology development and validation for off-field produced water reuse under the U.S. Environmental Protection Agency's national Water Reuse Action Plan (Action 4.2), available at <https://www.epa.gov/waterreuse/national-water-reuse-action-plan-online-platform>.
3. Joined with New Mexico State University to form the New Mexico Produced Water Research Consortium (Consortium), which launched in January 2020 to pursue collaborative research to fill science and technology gaps associated with the treatment and reuse of produced water for purposes outside of the oil and gas sector.
4. Chairs the Government Advisory Board of the New Mexico Produced Water Research Consortium, facilitating advice to the Consortium's technical leaders from across New Mexico state agencies, neighboring state governments and federal agencies.
5. Hired two produced water technical staff in 2022 to prepare first phase of rule development before the WQCC, which will include multiple opportunities for public engagement.
6. Engaged a third-party consultant to assist with first phase of rule development.
7. Responded to several notices of intent to discharge by informing the interested parties that NMED is not issuing permits for discharges of produced water outside of the oil and gas sector while we invest in the science and because applicable WQCC rules are not in place.
8. Coordinates with OSE and the Interstate Stream Commission on reuse considerations for the 50 Year Water Plan.

#### **OSE**

Under the Produced Water Act, the State Engineer does not directly regulate produced water, as a permit is not required to use produced water. However, the State Engineer has "general supervision of waters of the state and of the measurement, appropriation, [and] distribution thereof." NMSA 1978, § 72-2-1. The Interstate Stream Commission, of which the State Engineer is the Secretary, has the statutory duty "to investigate water supply, to develop, to conserve, to protect and to do any and all other things necessary to protect, conserve and develop the waters." NMSA 1978, § 72-14-3. New Mexico is at the forefront of addressing the challenges presented by climate change and increasing aridity of the Southwest. The availability of surface water flows are unreliable and those flows are decreasing in quantity. New Mexico has tapped the underground sources as the surface supplies wane. This water becomes increasingly saline and this comes at a cost for pumping and treatment. The need for alternative sources of water is one core policy objective that led the legislature to enact the Produced Water Act in 2019.

The State Engineer's role is to ensure that the use of produced water is not considered the exercise of a water right as defined by our laws; that the quantity of water that has been placed into reuse is metered and reported; and that commingling of uses of recycled produced water with fresh water is clearly

metered separately from fresh water used beneficially toward a water right. The activities that the Office of the State Engineer has engaged in related to produced water include:

- Attending meetings and symposia regarding produced water to field and answer questions relating to the use of produced water and how we distinguish use by disposal from beneficial use, which the New Mexico State Constitution defines as the limit and measure of a water right.
- Participating in the Consortium's Government Advisory Board.
- Encouraging oil and gas producers to replace the use of fresh water with produced water in their processes.
- Investigating the use of treated produced water for such purposes as Compact deliveries, crop irrigation, municipal water supply, and aquifer storage and recovery.

EMNRD, NMED, and OSE are actively engaged in collaboration to oversee responsible and sustainable produced water management strategies in New Mexico. Although budgetary and staffing challenges in all the agencies impact meaningful advancement of produced water rulemaking, implementation, and enforcement, over the past three years, the state has fostered significant progress in reducing the use of potable water in the oil and gas industry and advancing sound reuse research and policy. Cutting-edge research is underway through the Consortium, a public-private partnership, to fill science gaps related to produced water composition, treatment effectiveness, and protection of human health and the environment associated with reuse outside of the oil and gas sector. NMED will look to the results of the Consortium's research to develop strong, science-based proposed regulations to provide for the treatment and reuse of produced water outside oil and gas where feasible and economical.

Looking forward, our agencies expect to see greater reuse of produced water generated in New Mexico. It is our focus to increase sustainable water resources as our region experiences more water scarcity due to climate change, improve management of water resources, and protect public health and the environment from contamination associated with produced water storage, transportation, treatment, disposal, and reuse.

For further information related to each agency's implementation of the Produced Water Act, please contact Michael Bowers, NMED Collaboration Coordinator, at [michael.bowers2@state.nm.us](mailto:michael.bowers2@state.nm.us), Adrienne Sandoval, OCD Director, at [Adrienne.Sandoval@state.nm.us](mailto:Adrienne.Sandoval@state.nm.us), or Jerri Pohl, OSE Statewide Programs Manager, at [jerri.pohl@state.nm.us](mailto:jerri.pohl@state.nm.us).

Sincerely,



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Cabinet Secretary, EMNRD

Rebecca Roose (for J.  
Kenney)

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State Engineer, OSE

Cc: Honorable Senator George Munoz, LFC Vice Chair  
David Abbey, LFC Director  
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