New Mexico Environment Department Wastewater Reuse Rule FAQ

Water Quality Control Commission hearing begins May 13, 2024.

What is the Rule and what does it do?

The proposed <u>Wastewater Reuse Rule</u>, expands the use of fracking waste called "produced water" outside of the "oilfield" by enabling the development of large-scale demonstration projects and industrial applications throughout the state - so long as there is no discharge to ground or surface water planned as part of the project.

What is "produced water"?

Produced water is not water. It is toxic waste fluid generated from the fracking process. It is legally defined, in the Produced Water Act as "a fluid that is an incidental byproduct from drilling for or the production of oil and gas."

How does "produced water" threaten environmental and public health?

"Produced Water" is a liquid waste that is highly toxic and radioactive. Drillers are allowed to use secret "proprietary" chemical cocktails that they inject into the well to aid in the drilling and fracking process - so the particular chemical composition of the substance varies and is not known without testing. However studies show that the substance is highly carcinogenic and radioactive. A recent study by Physicians for Social Responsibility documents the prevalence of PFAS, forever chemicals, in oil and gas operations in New Mexico. In addition to toxic chemicals, the liquid waste includes salty brine flowback containing naturally occurring substances like hydrocarbons, arsenic and radioactive particles that come up with the fossil fuels that are being extracted.

Produced water commonly contains arsenic, barium, bromide, mercury, benzene, toluene, ethylbenzene, and xylenes. These have the potential to cause cancer and developmental, reproductive, and other harmful effects in humans and other life. Workers have become ill and even died when exposed to produced water in Pennsylvania.²

Has industry proven their safe handling of this dangerous waste?

On average, the oil and gas industry spills this toxic radioactive substance 4 times per day. These are the reported spills. Though release into the environment is prohibited under 19.15.29,³ the Oil Conservation Commission, the state agency responsible for enforcing the spills rule, has failed to take action against polluters. With no real consequences, spills have grown 16% in the last year fully reported.⁴

If this stuff is so dangerous, why is its reuse off the oilfield being pursued?

The oil and gas industry has a waste problem for which they don't have an answer. In the Permian basin fracking operations produce more waste than fuel. For every barrel of oil produced, approximately four barrels of waste are generated. Some is reused in the well drilling process and some is injected back underground into injection wells, but this method is now being curtailed because of related earthquakes endangering lives and

¹ https://psr.org/wp-content/uploads/2023/04/fracking-with-forever-chemicals-in-new-mexico.pdf

² https://publicherald.org/i-turned-blue-workers-share-horrifying-experiences-treating-fracking-wastewater/; Nobel, J. (2024) "Petroleum-238: Big Oil's Dangerous Secret and the Grassroots Fight to Stop It," New York: Karrett Press.

³ https://www.srca.nm.gov/parts/title19/19.015.0029.html

⁴ https://westernpriorities.org/resource/2022-spills-tracker/

infrastructure - 2,404 significant quakes in 2022. The rest is stored in evaporation pits and eventually reduced to a toxic sludge that is transported to hazardous waste landfills throughout the state.

With recent significant increases in production, this toxic waste has become a costly problem for the oil and gas industry. Because disposal outside the oil field is prohibited under the Produced Water Act, this rule is an attempt to authorize the disposal of industrial waste through treatment and reuse.

Wondering about the political context and motivation behind this? Look no further than <u>this news coverage of the Permian Basin Water & Energy Conference</u>.

What kinds of reuses are contemplated in the rule?

The rule will allow for "demonstration" and "industrial" projects throughout the state without any specifications, standards, or limits on the number of projects or the kinds of applications except in two areas:

- 1) Both demonstration and industrial projects must be determined to not discharge to ground or surface water. So, for example agricultural use would have to be in a greenhouse, laboratory, or other "closed loop" water and soil system.
- 2) Industrial projects must have restricted or limited public access. Examples of industrial projects included in the rule include alternative energy, hydrogen production, cooling water, process boiler feeds, utility power plants, chemical plants, and metal working facilities, but industrial applications are not limited to these uses.

What standards exist for projects regarding public and environmental health and safety?

- There are no scientifically-based standards for treatment of produced water in this rule.
- There are no scientifically-based standards for the handling of produced water in this rule.
- There are no standards for risk abatement.
- There are no standards for financial assurances.

The Environment Department's draft rule has no restrictions except the surface/groundwater discharge restriction. The requirements for approval are that the companies answer all the questions in the Notice of Intent in order to move their projects forward. The Notice of Intent requires that they describe what they plan to do including their plan for research, handling, treatment, transportation, disposal, risk abatement, cleanup when accidental discharges happen, and financial assurances - but there are no minimum standards required for approval. All they have to do is answer all the questions and then "Based on the information provided in the notice of intent, the department shall make a determination if the Demonstration project or industrial project meets the requirements in this section." A "shall" issue regulation removes discretion by the regulatory agency to deny a notice of intent or weigh the benefits and risks to human health and the environment.

Who supports this Rule?

The Reuse Rule is a collaborative answer between the oil and gas industry, the oil and gas friendly administration, and some environmental groups whose legal position in this case supports the reuse of produced water off the oil field as long as there is no discharge to ground or surface water.

Who opposes the Rule and What Alternative Do they Propose?

A group of over 20 Indigenous, environmental justice, climate advocates, farmers, youth, and public health groups are organizing against the rule's adoption. New Energy Economy, the Center for Biological Diversity, and Wild Earth Guardians have all entered as parties to the case and filed testimony by experts who put forth extensive evidence of the danger posed by the rule. See the testimony of Norman Gaume, Justin Nobel, and Melissa Troutman.

See our website here <u>DefendNMWater.org</u>.

We are calling for an alternative rule that prohibits all reuse of produced water off the oilfield unless and until science proves that it is safe! Beyond the rulemaking, organizers are calling for support for safe and scientifically-sound measures to address New Mexico's water shortage concerns - such as funding resource management measures outlined in the 2019 Water Data Act and 2023 Water Security Planning Act.

What are our arguments?

- The proposed <u>Wastewater Reuse Rule 23-84</u>, vastly expands produced water reuse to large-scale industrial and demonstration projects off the oil field with no scientifically-based standards for the treatment, handling, or disposal of the toxic and radioactive substance.
- There is no scientific research that supports the treatment of produced water reuse to standards that make it safe for humans or the environment. Meanwhile, extensive research points to the toxicity and hazardous nature of this waste to human and environmental health.⁵
- While the rule prohibits discharge of treated or untreated produced water to ground and surface water there is ample evidence to support the claim that spills will increase with its increased reuse. Further the toxic waste, even more highly concentrated after separation and treatment, from demonstration and industrial projects, poses significant threats to New Mexicans health and safety.
- Requirements for "closed loop" projects and projects that do not plan to discharge into ground and surface water are inadequate protections given the overwhelming evidence of the state's failure to protect New Mexicans from oil and gas spills and illegal discharges from oil and gas operations, which take place daily throughout the state. For example, in the Permian, 38,741 spills took place in 2022. In relation to the handling of produced water specifically, 616 produced water spills were reported in 2022 in the Permian and statewide an average of 4 spills takes place per day. The vast majority of spills have been met with no penalty enforcement by state agencies. The transportation and waste disposal associated with large-scale demonstration and industrial projects contemplated in the Rule pose significant additional threats to New Mexico's waterways, land, and human health.

⁵ See the testimony of Norman Gaume, Justin Noble, and Melissa Troutman:

https://www.env.nm.gov/opf/wp-content/uploads/sites/13/2024/04/NEE-Exhibit-A-WQCC-23-84-R-2024-4-15-NEE-Expert-Norm-Gaume-Direct-Testimony-and-Exhibits_Part1.pdf;

https://www.env.nm.gov/opf/wp-content/uploads/sites/13/2024/04/NEE-Exhibit-B-WQCC-23-84-R-2024-4-15-NEE-Expert-Justin-Nobel-Direct-Testimony-and-Exhibits.pdf;

https://www.env.nm.gov/opf/wp-content/uploads/sites/13/2024/04/2024-04-15-WQCC-23-84-WildEarth-NOI-and-Exhibits-pj.pdf.

https://www.blm.gov/sites/default/files/docs/2023-11/water-support-document-for-oil-and-gas-development-new-mexico-2023.pdf.

⁷ Id. Page 28

⁸ Id. <u>https://westernpriorities.org/resource/2022-spills-tracker/</u>

- Proponent's contention that there are no circumstances under which produced water, treated or untreated, will contaminate our ground and surface water is flat wrong. The rule itself states that "any release of untreated or treated produced water is subject to the notifications and corrective action in 20.6.2.1203 NMAC...." and further that "if NMED determines that the operator "cause[d or is causing] water pollution in excess of the [as yet undefined] standards then "an abatement plan may be required." There is no assurance that treated or untreated water will NOT impact ground or surface water. This expansion poses an extreme risk to public health and the environment.
- All use of produced water off the oil field, including any experimental industrial and demonstration reuse projects, should be prohibited unless and until proven standards exist for adequate protections for workers and community members.
- The Water Conservation Commission must comply with the requirements that its rules are based in sound scientific evidence in order to protect public health and the environment.
- This Rule is a bailout of the oil and gas industry's waste problem instead of holding the industry accountable for their waste and addressing the problem at its source the oil and gas production process, this Rule authorizes risky and dangerous experiments to dispose of produced water through "reuse".
- This Rule should be understood in its political and historical context. It moves forward an energy and water resource management agenda that is devoid of scientific standards and that socializes the risks, costs, and long-term liabilities of dangerous experiments to the public. This rule creates the mechanisms for the state to pursue Michelle Lujan Grisham's administration's plan to commodify and repackage fracking waste as a new source of "water" and use public funding to subsidize the dangerous experimental use of this toxic waste in commercial enterprises throughout the state under the umbrella of the "Strategic Water Supply" including the subsidization of the production of hydrogen energy at great cost and risk to the public good.

What Can YOU do to stop the rule?

The proposed rule goes to hearing on May 13th before the Water Quality Control Commission.

Environmental justice, Indigenous, frontline, and advocacy groups are inviting members of the public to join in defending NM water, the rights of Indigenous, acequia, and other water rights holders, land stewards, farmers, and youth in standing up to stop this rule and the Industrial and Demonstration projects it will enable and to call instead for an alternative rule that prohibits all reuse of produced water! Organizers are also calling for support for safe and scientifically-sound measures to address NM's water shortage concerns - such as funding resource management measures outlined int the 2019 Water Data Act and 2023 Water Security Planning Act. *Unless and until the effective treatment of the toxic radioactive waste is proven possible and scientific standards for treatment, specific reuse applications, and disposal are established, toxic fracking waste "water" has no place in our communities.*