

Testimony of Dr. Valerie Gremillion

*To aid the court reporter as I speak
VERY rapidly!*

I am currently an UNAFFILIATED research scientist.

My degrees are from Northwestern University, and a Neuroscience Ph.D from UCSD, but other fields of study were at LANL and Oxford University, in large-scale nonlinear brain modeling; UNM and SFI in ecosystems and human systems modeling. I have been an independent neuroscience, ecology, and complex systems consultant for the past 20 years.

This is relevant because I am currently engaged in a systems-based cost-benefit analysis of human-ecosystem interactions, including laws and economic incentives of the State of NM.

My comments today are to directly note that the information needed by the public to make wise decisions is either unknown or unavailable, and this is **not acceptable for our future.**

Fracking endangers our drinking water supply, our communities and ecosystems, our forests, rivers, aquifers, the health of our citizens, and our ability to adapt to climate change.

FRACKING THREATENS OUR ABILITY TO SURVIVE IN NEW MEXICO.

Fracking impacts

- ❑ How do we know revenue to the State from Oil&Gas is sufficient to compensate for destruction of personal and community health, destruction of landscapes, resources, and ecosystems, especially now that O&G prices have cratered?
- ❑ What cost-benefit analyses have been done by EMNRD, NMED, or other agencies?
- ❑ What is the sustainability model for the amount of fresh water O&G uses? How can taxpayers AFFORD 162,000 acre feet of fresh water used by fracking in 2019 (ABQ=100,000 acre feet) ?
- ❑ Do frackers pay the market value of this water?
- ❑ -why can i find NO public electronic databases at either EMNRD nor NMED documenting O&G violations, fines, incident lists? Does such a publicly available database exist? A private one? **Please make all such data electronically available.**

Inadequate economic/health/ecosystem impact data

What is the ratio of inspectors to wells in NM?

Why have we not prioritized hiring inspectors for fracking wells despite this being a neglected revenue stream?

How many times is a well inspected over its lifetime, and how much revenue is lost due to non-regular inspections?

At what rate do O & G companies pay for water, e.g. the 162,000 acre-feet used in 2019, 62% more than the city of ABQ?

Why are we issuing new permits when old wells are not cleaned up, nor profitable?

Un-determined costs of fracking

-fracking water components are not merely carcinogenic in many cases, but detrimental to liver, kidney, aging functions, and explicitly brain health and IQ.

-what bonds, payments or other recompense for these is offered by O&G?
What cost analysis of health impacts has been done? Damage to children?
Increase in Alzheimer's and other degenerative diseases?

-Damage and destruction of our ecosystems and towns (Carlsbad now at risk of a catastrophic sink hole due to fracking; who pays for this?), our quality of life, wildlife habitat and tourism economy.

Earthquakes in our volcanic zones now likely due to deep well injection!

Frackers profit, NM future is destroyed - **WE CANNOT AFFORD THIS.**

This rule-making is exactly wrong.

Splitting regulation between EMNRD (incentive: all fracking) and NMED (incentive: environmental health) is backwards - we are unable to track the true costs and benefits of fracking and especially **toxic 'produced' water disposal** and its impacts on health, agriculture, ecosystems and all water systems. **DESTROYING OUR WATER DESTROYS OUR FUTURE.**

This is gross abuse of our supposedly transparent system, and profits are accrued by fracking companies but **COSTS ARE EXTERNALIZED TO NM TAXPAYERS.**

Incentives and punishments for failure to abide by NM law are invisible to the public; the current rule-making showing no ability for citizens to track causes and impacts, **THIS INFO MUST BE MADE AVAILABLE TO THE PUBLIC.**