

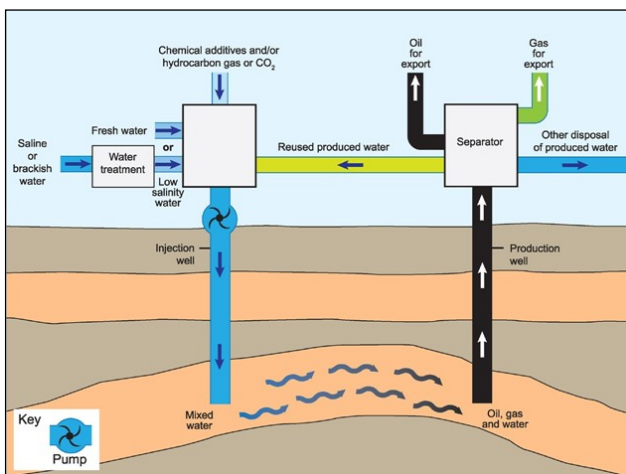


PRODUCED WATER FACTSHEET

What is the “Produced Water Act”? Passed as part of House Bill 546 (HB 546) in the 2019 New Mexico Legislative Session, the Produced Water Act provides jurisdictional and legal clarity over produced water in New Mexico, and encourages the oil and natural gas industry to favor **reuse, recycling** and **treatment** options instead of a reliance on limited fresh water resources.



What is Produced Water?



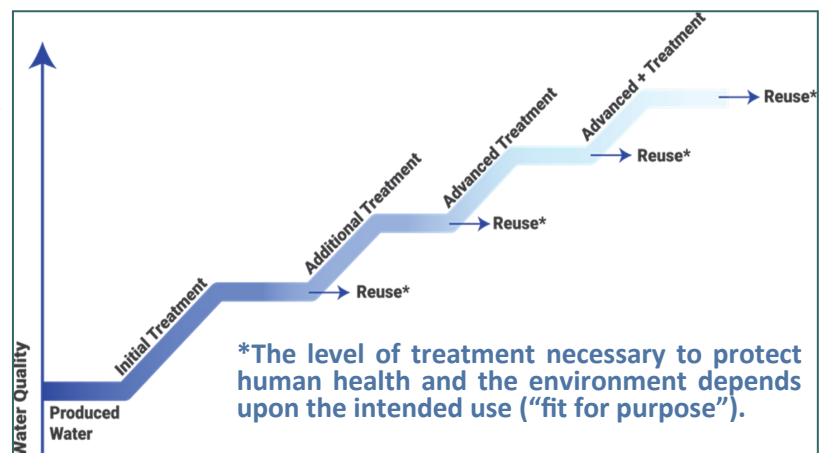
- “Fluid that is an incidental byproduct from drilling for or the production of oil and gas” (HB 546)
- Comprised primarily of naturally occurring, highly saline water
- May include fluids that were used during drilling, such as hydraulic fracturing fluids
- Traditionally considered a waste product

To date, only about 10% of all produced water generated in New Mexico is reused or recycled in oil and gas operations. No produced water has been permitted for use outside of oil and gas production activities.

Source: <http://www.gwpc.org/producedwater>

Why Encourage Reuse, Recycling, and Treatment of Produced Water Now?

For every barrel (42 gallons) of oil produced, four to seven barrels of produced water may be generated. In 2018, New Mexico became the third largest oil-producing state, generating over one billion barrels of produced water (~60,500 Olympic size swimming pools). New Mexico is considering alternate pathways for produced water management to address growing concerns associated with (1) current underground disposal practices associated with continued oil and gas development, which is not sustainable and has been linked to other environmental challenges, such as earthquakes; and (2) water scarcity and groundwater depletion, which are forecasted to grow more severe due to climate change. Before being reused, produced water must be treated to varying levels to remove oil residues, salts, suspended solids, and other chemicals. Technological advancements are creating new opportunities to treat and reuse water while protecting the environment and human health.



Source: <http://www.gwpc.org/producedwater>



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Who Regulates Produced Water in New Mexico?

- Energy, Minerals, and Natural Resources Department (EMNRD) ➡ Produced water disposal and reuse within the oil field
- New Mexico Environment Department (NMED) ➡ Treated produced water use outside oil field
- Office of the State Engineer (OSE) ➡ No permit required

Next Steps for New Mexico’s Produced Water —Now and in the Future

NMED’s goal is to create regulations that:

- ✓ Protect human health and the environment,
- ✓ Reduce reliance on limited fresh water, and
- ✓ Leverage science-based and innovative solutions.

To that end, NMED is actively soliciting input from a diverse group of voices in all phases of Produced Water Act implementation to ensure future regulations meet this goal.

How Produced Water Could Benefit New Mexico

- ◆ Emerging technologies allow for effective treatment for intended use within and outside oil and gas that is protective of human health and the environment.
- ◆ With targeted **research**, proper **regulation**, and determination of appropriate **treatment** levels, potential use of produced water outside the industry is possible.

PHASE I

PUBLIC ENGAGEMENT

- ✓ NMED, in coordination with EMNRD and OSE, hosts public engagement meetings in New Mexico, and shares information via web and listserv.

RESEARCH

- ✓ On September 9, 2019, NMED and New Mexico State University (NMSU) entered into an agreement to establish an NMSU-led **Produced Water Research Consortium** to develop and fill science and technology gaps associated with using treated produced water.



PHASE II

DEVELOP STANDARDS

- ✓ NMED will rely on public input and research findings from Phase I to develop science-based standards for treating produced water for use outside the oil field.

FORMAL RULEMAKING

- ✓ NMED will propose draft regulations for formal rulemaking before the Water Quality Control Commission, including public comment period and hearing.