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Strategic Water Supply

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Summary

- In 2023, New Mexico Governor Michelle Lujan Grisham and the New Mexico Environment Department announced plans for creating a strategic water supply (SWS) in New Mexico. One part of the Governor's 50-year water plan, the SWS asked for \$500 million in severance tax bonds that would then be invested in technology, the purchasing of water for community use, and creating advanced market commitments to attract private companies that can build desalination and produced water treatment facilities. In the New Mexico Environment Department's FY26 budget request, the agency requested a special appropriation of \$250 million for "the development, implementation, or support of the Strategic Water Supply."
- One of the goals of the SWS was to create 100 thousand acre-feet of new water by 2028 that would be available for state use and resale in clean energy broadly. Another was that by 2035 the state would be producing 50 thousand acre-feet of treated brackish water that could be used to recharge aquifers and to augment the state's supply of fresh water for a myriad of uses.
- A part of the SWS was also a revision of New Mexico's current laws surrounding produced water. NMED began a rule making process of creating comprehensive regulations on produced water reuse in the fall of 2023. These proposed regulations are still being discussed by the Water Quality Control Commission (WQCC), who is tasked with outlining the state's water quality standards. There have been three meetings of the WQCC on the proposed produced water reuse rules, with a further hearing scheduled for later this fall and a ruling to follow.

Water Quality Control Commission and the Reuse Rule

- The proposed rule by NMED would add new authorized uses of treated produced water, those being demonstration projects and industrial projects. The proposed rule defines an industrial project as, "reuse water project that does not discharge and that is used in connection with industrial processes, such as alternative energy, hydrogen production, cooling water, process/boiler feeds, utility power plants, chemical plants, and metal working facilities where at a minimum, public access is restricted or limited." The proposed rule defined a demonstration project as "a bench-scale or pilot project," bench-scale being a project or study conducted in a laboratory and a pilot project being an engineering scale-model or system that is beyond the scope of a bench-scale project and is tested in a non-laboratory environment. Put simply, bench-scale is at a smaller scale while pilot project is larger and longer.
- The hearings before the WQCC center around the idea of "industrial use" and the use of produced water outside of the oil field. One aspect of industrial use would be the cleaning of produced water to a level that can be used in clean energy production, specifically green hydrogen production. Witnesses before the WQCC have discussed what that the level of water

purity would need to be “ultrapure,” meaning the water 4 times cleaner than current drinking water standards. Currently, New Mexico does not have the infrastructure to clean the water to a level to be used for green hydrogen. Further, New Mexico does not have a hydrogen power plant that could use this cleaned produced water.

- Questions before the WQCC regarding the industrial use of produced water include who would regulate the cleaning of the produced water and what would be done with the effluent left behind once the produced water is cleaned? Further, compounds that are common in produced water include various radioactive materials, heavy salts, Per- and polyfluoroalkyl substances or PFAs, and other substances that, due to the complex make up of produced water, can only be tested for if it is known they might exist in the produced water. By cleaning produced water at the scale suggested in hearings, not insubstantial quantities of these various effluent would be left behind during the cleaning process, creating the question of whether New Mexico has the ability to dispose of these dangerous materials safely or has the capacity to regulate the industry creating and cleaning it to do so.

The Produced Water Act

- The act currently defines produced water as “a fluid that is an incidental byproduct from drilling for or the production of oil and gas.”
- The act also outlined that produced water can be used for things other than oil and gas operations, stipulating that produced water use has to follow the rules of the Water Quality Act, and a person must obtain a permit from the Department of Environment before using produced water, regardless of whether its been recycled or not.
- The Water Quality Act (of 1967) gives the Water Quality Control Commission the authority to define and adopt water quality standards. The Produced Water Act also requires that OCD produce an annual report of OCD’s enforcement actions regarding the regulation of produced toxic oil and gas wastewater.