El Agua Es Vida (Water Is Life)

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New Mexico faces significant and increasing future water scarcity due to its arid climate, over- allocation of existing supplies, and likely future droughts. Traditional freshwater sources such as rivers, reservoirs, and shallow groundwater are diminishing each year. It is imperative to explore and find new, alternative water resources such as brackish groundwater, which is water with salinity slightly greater than freshwater but much lower than seawater. Use of brackish water resources offers a practical and economical way to supplement limited existing potable (drinkable) water supplies throughout the state.

The U.S. Geological Survey (USGS) has estimated New Mexico may have sufficient reserves of brackish groundwater to meet the state's future needs for hundreds or even thousands of years. But this potentially enormous water source has yet to be proven and defined in detail. Passage of HB 137 by the 2024 State Legislature provided nearly $34 million in funding for the New Mexico Bureau of Geology and New Mexico State University to investigate in greater detail those groundwater basins around the state which have deep brackish aquifers and to characterize the quantity, quality, and sustainability of these aquifers as major sources of future unconventional water.

While brackish water is often unsuitable for direct human uses, recent advances in desalination technology make it possible to treat brackish water efficiently and cost-effectively. New Mexico's vast renewable solar, wind, and geothermal resources provide ample, low-cost energy to power desalination technology. Using advanced reverse osmosis and modern treatment methods, brackish groundwater can be transformed into potable water. Having more potable water reduces pressure on our existing freshwater supplies.

Supplementing potable water resources with brackish groundwater offers three benefits: (1) it provides a reliable, drought-resistant water source, since brackish aquifers are not vulnerable to surface evaporation; (2) it enhances water security for communities, agriculture, and industries during prolonged dry periods; (3) it promotes economic growth by supporting NM’s water-intensive industries such as data-storage centers, arid-land agriculture, and high-tech manufacturing, which are vital to New Mexico’s future economic growth.

By integrating brackish groundwater resources into the state's water management framework, New Mexico can build a more resilient and sustainable water future and can transform the state's long-term economic base. Should the USGS’ estimates of the enormous quantities of New Mexico’s brackish groundwater prove correct, our state could ultimately become a net exporter of potable water to surrounding water-starved states like Arizona, Nevada, and California--perhaps ultimately replacing oil and gas extraction as the most important source of our state’s tax revenues and future economic development.

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