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DEEP GROUNDWATER MANAGEMENT IN NEW MEXICO

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ABSTRACT: New Mexico aquifers may contain as much as one billion acre-feet of brackish groundwater. Long recognized as an important resource, this groundwater is receiving increased attention. Since 1967 nonpotable water in deep aquifers has been legally excluded from administrative groundwater basins declared by the State Engineer. These aquifers were defined in statute as any aquifer the top of which is at least 2,500 feet below ground surface and which contains nonpotable water (total dissolved solids content greater than 1,000 parts per million).

For 40 years only one notice to drill into a deep nonpotable aquifer was filed with the State Engineer. From 2006 through 2010, 68 notices proposing 610 deep wells for the appropriation of over 1.7 million acre-feet were filed, in what has been described as a "gold rush" on New Mexico's deep groundwater. To put this in perspective, in 2005 groundwater withdrawals in the state totaled about 1.8 million acre-feet. Most of these notices were filed for municipal and related uses in the Albuquerque area. To date (March 2010) only seven deep wells have been drilled.

Amendments to New Mexico water law enacted in 2009 allow the State Engineer to declare and administer deep basins. Appropriations from a declared deep basin would remain subject to the deep nonpotable aquifer statutes, except for drinking water uses, which would be subject to the stricter laws governing shallow declared basins. The amendments also specify that a deep aquifer contain only nonpotable water, limiting the potential for connection to freshwater sources and effects on senior users and interstate streams. Within this context the State Engineer is exploring management options for New Mexico's deep groundwater. These include strategically declaring deep basins, regulating deep well drilling and construction, and developing an administrative framework that allows resource development while protecting existing water users.

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