

Potential for Injury to Pueblo Water Rights Due To Surface Water-to-Groundwater Transfers in the Middle Rio Grande Basin, New Mexico

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ABSTRACT

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This paper describes the potential for injury to Middle Rio Grande Basin "Prior & Paramount" and other Pueblo water rights due to water rights transfers of pre-1907 surface water rights to groundwater rights. There are a number of factors that can contribute to the injury, including: (i) year-round groundwater use vs. seasonal surface water use; (ii) the potential for new groundwater uses to inappropriately attain "preferred use" status; (iii) impacts on canal conveyance efficiency of surface water delivery system; (iv) delayed depletions to surface flows (due to both delayed implementation and lagged depletions due to groundwater pumping); (v) potential for transfer of forfeited, abandoned or inflated water rights, and; (vi) inadequate groundwater impairment analysis within Middle Rio Grande Administrative Area Critical Management Area. This paper briefly describes each of these issues, and summarizes a quantitative hydrologic analysis of how the New Mexico Office of State Engineer administration of surface water-to-groundwater transfers combined with the shortage-sharing policies of the Middle Rio Grande Conservancy District can lead to a quantitative injury to Pueblo water rights and uses, as well as non-Pueblo pre-1907 rights. We emphasize that an adequate evaluation of the magnitude of injury to Pueblo rights has yet to be undertaken, nor has it been required by the New Mexico Office of the State Engineer to date.