**NASA DEVELOP National Program**

****NASA Jet Propulsion Laboratory

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**Short Title: New Mexico Agriculture and Water**

**Updated Abstract**

As New Mexico is experiencing some of the most severe drought in the US, equipping water resource management with evapotranspiration data becomes increasingly vital. Knowledge of rangeland conditions is necessary for decisions regarding cattle management, emergency response for rapid rangeland and farmland deterioration, fire management risk decisions, and determining drought severity. New Mexico land managers and decision-makers currently assess rangeland conditions using spatially-limited *in situ* spot checks which provides limited information. Additionally, weekly Normalized Difference Vegetation Index (NDVI) and evapotranspiration products for New Mexico counties are not widely distributed nor easily accessible. By providing an automated, streamlined, non-proprietary evapotranspiration product to the New Mexico Office of the State Engineer, New Mexico decision makers will have easy access to critical evapotranspiration data which will drive water resource decision making and drought assessment. To create the evapotranspiration product, we utilized the MODIS sensors on NASA’s satellites Aqua and Terra to retrieve several land and atmosphere datasets.