

# NM statewide water assessment: Assessment of Spatiotemporal Groundwater Level Changes Throughout New Mexico

## Objectives

- Transmit data from a groundwater database into a Geographic Information System (GIS) to map out the spatial distribution of groundwater level changes for visual and spatial analysis
- Calculate groundwater elevation, change in groundwater elevation, and change in groundwater pumping and population
- Evaluate the potential impact of increased groundwater pumping on changes in groundwater elevation

## Projected Outcomes

- Statewide maps showing changes in groundwater elevation from 1994 to 2014 (5-year time intervals)
- A map of the change in groundwater levels over time provides a spatiotemporal assessment of the impact of groundwater withdrawals over time throughout NM.

# Analogous Assessment of Groundwater Level Changes

- Burns et al., 2012, used trend analysis and evaluated changes in water levels over time (slope increase or decline in figure legend).
- This figure from Burns et al. (2012) illustrates the type of product that will be generated for the State of NM.
- These data will be compared to land use, population, and groundwater extraction data to evaluate potential causes of water-level change.

