

# 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

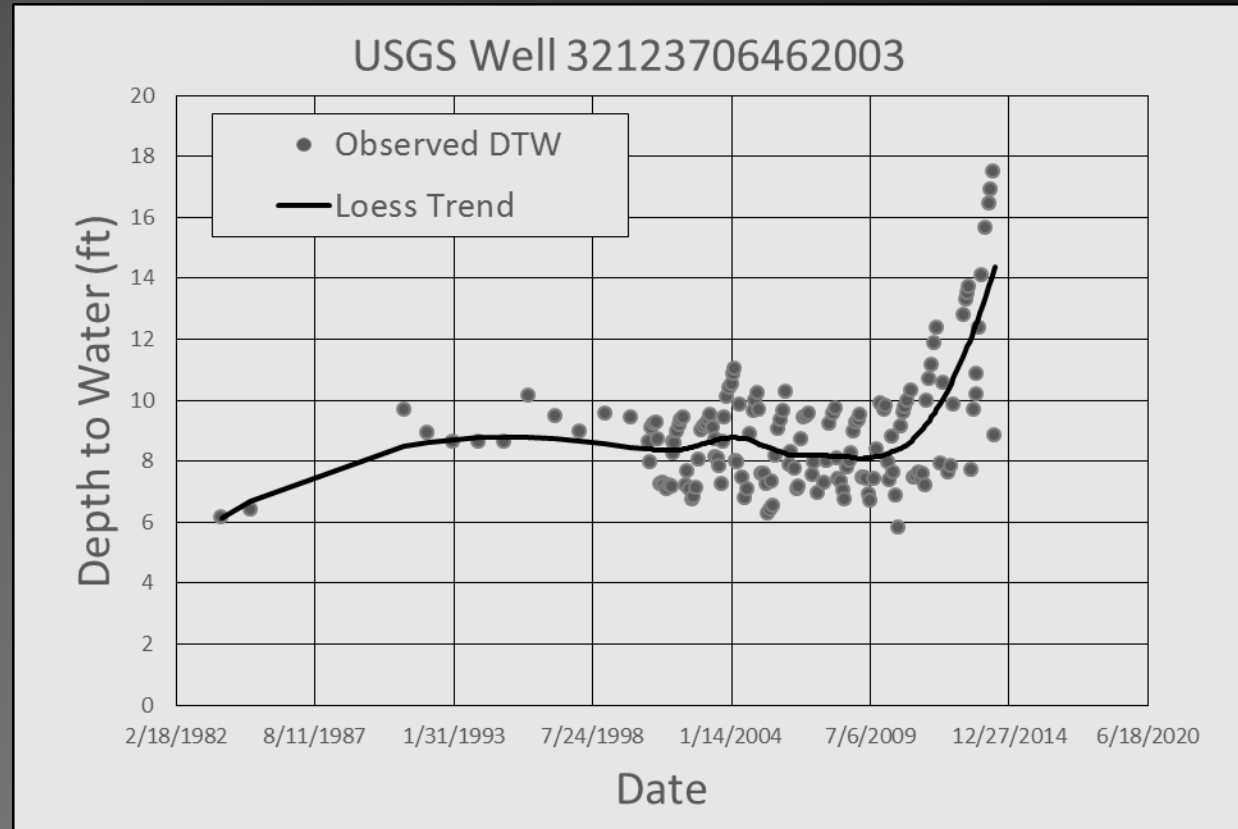
## Projected Outcomes

- 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.

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## Methods (Loess Trend Analysis)

- Trend analysis provides a way to incorporate multiple data sources with varying sample intervals and times
- Reduces the potential error caused by anomalous data points and seasonal fluctuations
- Supports comparison of data at various locations and over time



United States Geological Survey (USGS) well 32123706462003  
depth to water data with loess trend