

Groundwater level and storage changes for regions of New Mexico

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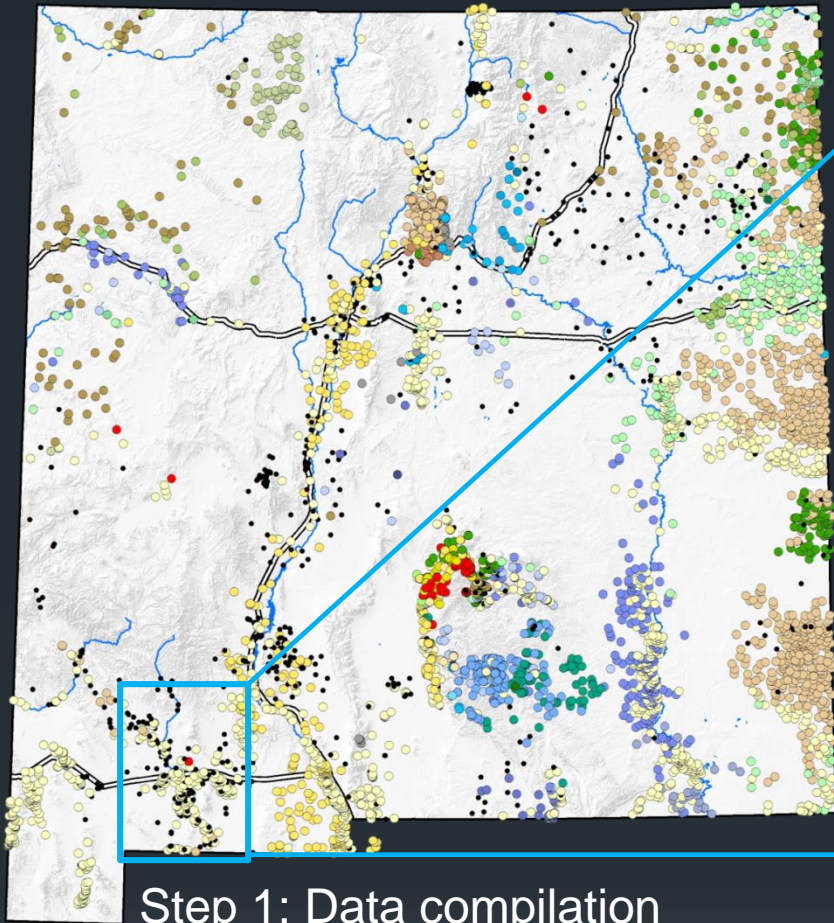
Water level change may indicate variations in nearby surface water, fluctuations in recharge amounts, and changes in the total water remaining in storage for future use.

- Step 1: Compile water level data into comprehensive, relational database by December 2014

Yet to be completed:

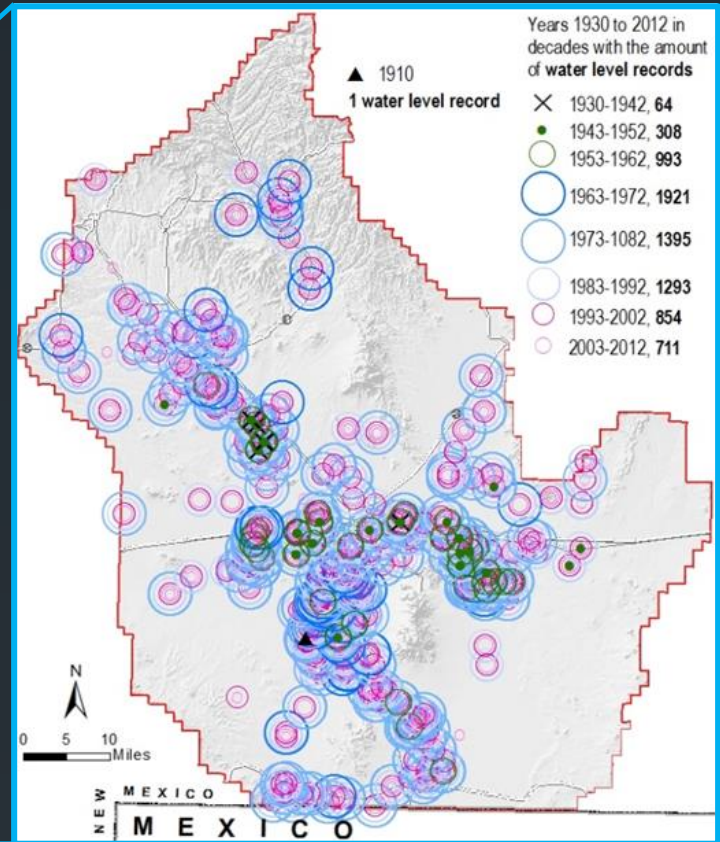
- Step 2: Select 2-3 basins/regions
- Step 3: Contour changes in groundwater levels over regionally-appropriate time interval (i.e. 5-10 years)
- Step 4: Calculate changes in water storage over relevant time intervals (where possible)

- Datasets from USGS/OSE, NMBGMR, others
 - Data coverage is NOT evenly distributed statewide; data gaps
 - Intervals of measurement are variable
 - Products:
 - Compiled water level database
 - Regional contours of water level changes
 - Estimate of change in groundwater storage
 - Technical report describing methodology*
- * This can be used on other regions of the state, pending future funding.



Step 1: Data compilation

Data as of November 2014. Well locations with at least 1 water level measurement from USGS, NMOSE and NMBGMR. Here, symbols are colored according to geologic formation of completion. To address groundwater storage changes, we need to look at water level changes in the same geologic formation.



Step 2: Region selection example

The Mimbres basin has 286 well locations, with about 7800 water level measurements to work with. Symbology at well sites shown above indicates a water level measurement exists within various 10 year intervals. Using these data, we can create points of water level change, that will then be contoured over the region.