

[This script was read on KUNM during Earth Science Week in 2016.]

## Welcome to Earth Matters: Field Notes on the Geology of New Mexico's Enchanting Landscapes

It should really be no surprise, living in a desert state like New Mexico, that our water resources are limited! With the trends of warming temperatures, and reduced snow pack in the winter, streams and rivers in New Mexico are expected to have less water. As this happens, New Mexican's will rely more heavily on groundwater resources pumped from wells. In many regions of New Mexico, we are already seeing declines in the amount of fresh groundwater available in storage- our water supply bank accounts are dwindling. Looking ahead, we need to move toward living within our means – because with water, we have few options for “overdraft” protection or credit lines!

This year, with a generous gift from the Healy Foundation, the New Mexico Bureau of Geology at New Mexico Tech will begin the process of estimating how much we have in our water bank account – that is, in our aquifers. Through this public-private partnership – the Bureau of Geology's Aquifer Mapping Program will begin two new projects. The first project will focus on providing groundwater level measurements in small and rural communities. We will check in on the groundwater “bank account” by doing measurements of the groundwater levels. Some locations will be instrumented with real-time water level measurement devices.

The second project will focus on the development of digital maps of aquifers. Although New Mexico is an arid state, with less than 1% of our land surface covered with water, we do not have detailed maps of most of our aquifers and groundwater resources. This aquifer mapping project will combine many different datasets, including geologic maps with detailed well information, along with reports and maps from regional studies.

For the past 6 years, contributions from the Healy Foundation have significantly increased the state's working knowledge of groundwater resources in Taos, Santa Fe, Union, Socorro and Catron Counties, and aided in the growth of the Aquifer Mapping Program at the Bureau of Geology.

Celebrating Earth Science Week, this is Stacy Timmons of the New Mexico Bureau of Geology at New Mexico Tech.