Study: Groundwater recharge an issue with climate change

By Mari N. Jensen, University of Arizona

Groundwater recharge in the Western U.S. will change as the climate warms – the dry southern regions will have less and the northern regions will have more, a University of Arizona-led research team reports.

“Our study asked what will be the effect of climate change on groundwater recharge in the Western U.S. in the near future, 2021-2050, and the far future, 2070-2100,” said first author Rewati Niraula. The research was part of his doctoral work in the UA Department of Hydrology and Atmospheric Sciences.

The study covers the entire U.S. West, from the High Plains states to the Pacific coast, and provides the first detailed look at how groundwater recharge may change as the climate changes, said senior author Thomas Meixner, UA professor and associate department head of hydrology and atmospheric sciences.

Groundwater is an important source of freshwater, particularly in the West, and is often used to make up for the lack of surface water during droughts, the authors note. In many areas of the West, groundwater pumping currently exceeds the amount of groundwater recharge.

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