

A Community-Engaged Weather and Soil Moisture Monitoring Network in the Roaring Fork Catchment of the Colorado River Headwaters

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Abstract

Local community and research interest to better understand regional climate change impacts has led to the establishment of a long-term soil moisture and weather observation network in the Roaring Fork catchment of the Colorado River Headwaters. This catchment-wide suite of 10 stations collects frequent and continuous data on soil moisture, soil temperature, rain, air temperature, relative humidity, and (at some stations) snow across an elevational gradient from 1,800m to 3,680m in elevation. We demonstrate how this effort can support research on mountain hydrology with applications for resource management and climate change adaptation decision making. We also share perspectives on the value and opportunities a community science approach can bring to catchment studies moving forward. All data from this project are publicly available.

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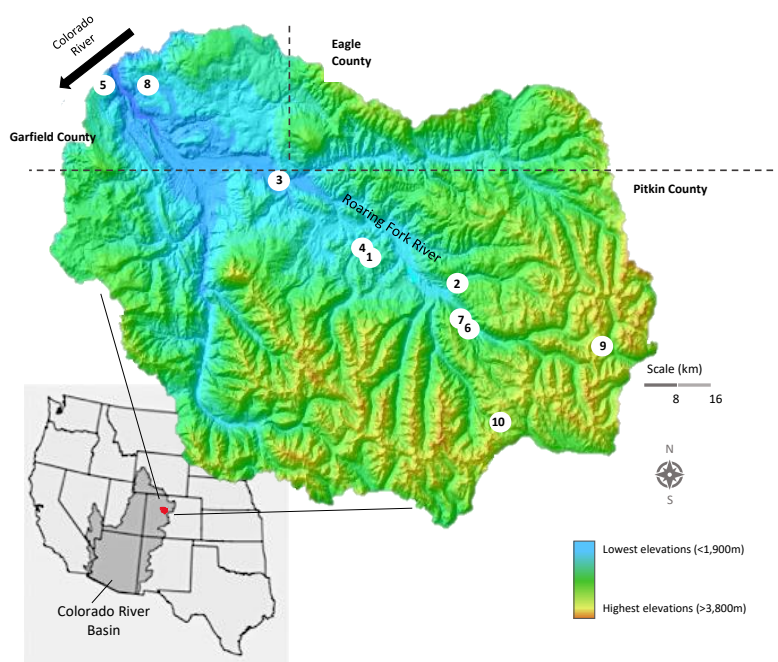
Acknowledgements:

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