

## Hydrologic Education: Fundamentals and Place

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Educating diverse audiences about water requires insight for an audience on fundamental process as well as a connection to the unique context of water in specific places. Understanding the science and application of hydrologic knowledge requires a structural understanding of the three problems of water, too much, too little, and not the right kind. Each place has all three of these problems but to different degrees and in different ways. A key in place-based teaching and learning about water is to provide place-based context to engage learners in understanding the fundamental processes at work in the movement of water on, in, and through the Earth System. These unique characteristics can either be engaged through the specific place where learning is occurring or through student interaction and reflection with data and analyses about a specific place of interest to them. At the University of Arizona we have experience engaging students and the public with our specific place to train them on the fundamental nature of surface and subsurface hydrology through analysis of the water balance the fundamental building foundation of hydrologic science. More broadly experience with the Project EDDIE teaching modules offers a way to engage with place-based learning for students who want to engage with data and understanding the problems of too much, not enough, and water that is not the right kind.

Tom Meixner is a Professor of Hydrology and the Department Head of Hydrology and Atmospheric Sciences at the University of Arizona. After getting his BS and BA he matriculated at the University of Arizona as a PhD student in Hydrology and Water Resources. He received his PhD in 1999 with work focused on Alpine Biogeochemistry. He then took a job as an Assistant Professor at the University of California Riverside. After 6 years there transforming himself to a biogeochemical-modeler working on alpine and semi-arid systems he was hired at the University of Arizona as an associate professor in Hydrology and Water Resources.

His research work has a significant urban hydrology, water quality, and green stormwater infrastructure focus in the last several years

