

Mountain Hydrology Challenges: Lessons Learned from the Dry Creek and Reynolds Creek Experimental Watersheds

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The mountain environment with complex terrain, elevation and vegetation gradients, varied land use, and mixed-phase precipitation presents numerous challenges for hydrologic simulation and prediction. Yet, the need for accurate hydrologic models in the mountain US is greater than ever as climate change, urbanization, and other land use impacts alter the hydrologic environment. Accurate models require quality, long-term observations for calibration and validation. The Dry Creek and Reynolds Creek Experimental Watersheds near Boise, Idaho were established to provide such data. In this talk, examples of the hydrologic complexities are presented and recent modeling advances in mountain terrain are summarized based on research in the two watersheds.