



UWYO 30-yr convection permitting retrospective simulations
(Wang et al. 2016)

▪ **Water-related limitations**

- ✓ The response of streamflow to precipitation and snowpack ablation remains difficult to physically model because of geographically unique subsurface water infiltration and storage characteristics.

▪ **Key objectives and tasks**

- ✓ To assess how distribution of precipitation, snowpack dynamics and streamflow is expected to change in a future climate.
- ✓ A multi-decade array is needed to capture most of the spectrum of precipitation, snowpack, and soil moisture combinations, and to reasonably predict flood probabilities.

▪ **Economic and environmental benefits**

- ✓ Will benefit the water allocation decision process within the framework of interstate water treaties, agricultural and forestry interests, and engineering projects designed to cope with extreme floods.