

Hydrologic Variability in the Upper Colorado River Basin over the Past 1300 Years

Connie Woodhouse^{*1}

* conniew1@email.arizona.edu

¹ School of Geography and Development, 412 Harvill Building, Box #2, University of Arizona, Tucson, AZ 85721-0076

The gage record of Colorado River hydrologic variability, including periods of drought and high flows, is over 100 years long, but is still too short to be useful for assessing the range of natural variability that is possible. Tree rings have proven to be extremely useful for extending record of hydrologic variability back in time. The longest reconstruction now extends to AD 762, and includes information about the duration, distribution, and magnitude of periods of both high and low flows. This record is useful for placing the characteristics of the gaged flows in a long term context. Although the record of past flows will not be an exact analogue for the future, it does provide information about a broader range of natural variability than provided by the gage record, and over which impacts of climate change on hydrology will be superimposed.