Figure S1. Normalized root mean square error (nRMSE) of the discharges estimated with the discharge scaling method across historical flood events and a representative low-flow (baseflow) snapshot from NWM in Silsbee and Port Arthur. Bars represent relative deviations between scaled synthetic and NWM peak discharges.
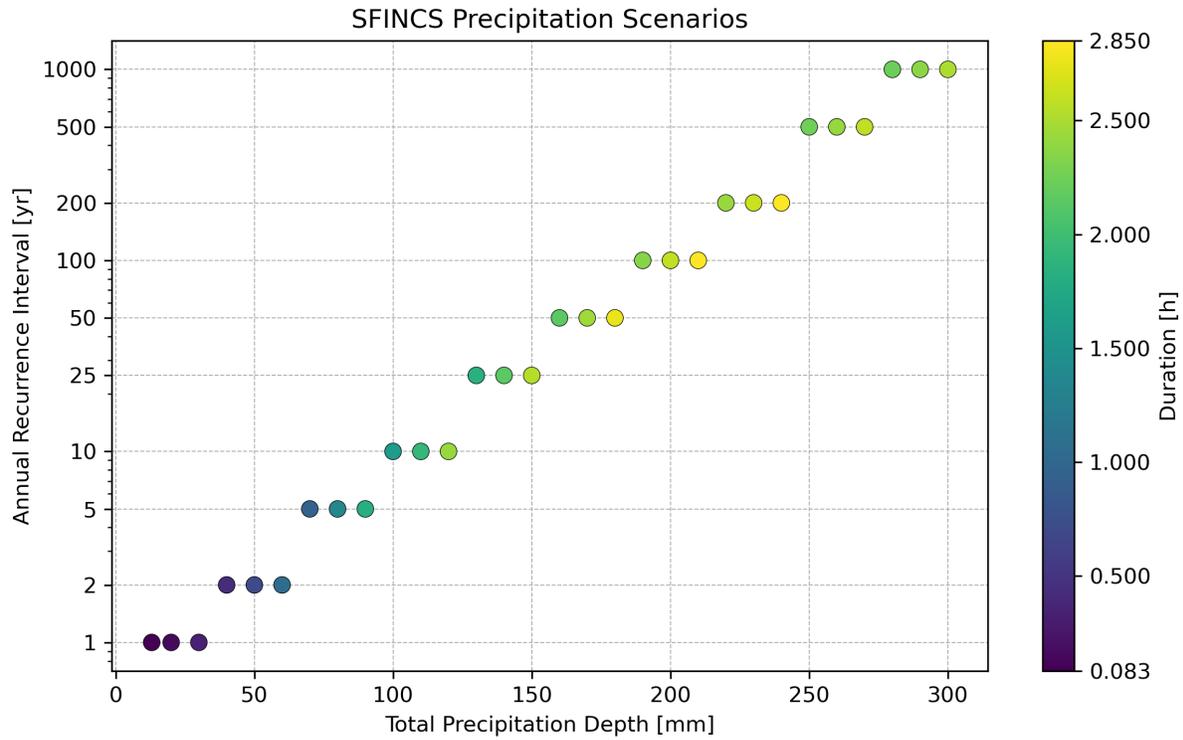
Figure S2. SFINCS precipitation scenarios: annual recurrence interval (log scale) vs. total precipitation depth, colored by duration. The minimum depth is 13~mm, corresponding to the 1-year, 5-minute event provided by NOAA.