Go with the flow: stream microbial communities are structured by historical flow conditions and carbon quality in urban intermittent rivers

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Intermittent rivers and ephemeral streams (IRES) comprise up to 60% of the total length of all river networks globally and will become more widespread in the future due to water abstraction and climate change. IRES have been shown to have “hot spots” or “hot moments” of biogeochemical activity due to the rewetting of streambed sediments after drought. It is imperative to understand post-flood or post-rewet microbial activity dynamics in these ecosystems as we may be underestimating their contribution to greenhouse gas emissions in global biogeochemical models. The work I’ll be presenting at this seminar will be an overview of a major research theme of my laboratory: evaluating how intermittent streams in an urban watershed (San Antonio River Watershed) differ chemically, physically, and biologically with respect to nutrient quality and bacterial microbiomes with significant collaborations between UTSA graduate students and the Pacific Northwest National Laboratory River Corridor colleagues.