



NCEAS ROUNDTABLE

Thursday August 15, 2024 @ 3:30 pm

In Person on the 3rd Floor Lounge + [Zoom](#)

Followed by a terrace happy hour

Future of Aquatic Flows: Synthesizing Linkages between Climate Change, Low-Flows, Water Quality, and Instream Flow Management Response across the United States

USGS Climate Adaptation Postdoctoral Fellows

Diminishing river and stream flows across the United States are driven by interactions between increasing freshwater demand, warming temperatures, and changing precipitation patterns. Changes in low-flow events profoundly impact water quality and consequently aquatic ecosystem health. However, our understanding of how water quality constituents respond to low-flows regionally is limited by disparate knowledge across disciplines and space. Our study's objective is to leverage literature and expert knowledge to synthesize a better understanding of low-flow impacts on water quality and aquatic ecosystems, and the subsequent implications for national and regional-scale instream flow management. Our review offers a better understanding of the fundamental interactions of low-flows and water quality, which can be utilized by scientists and natural resource managers to both improve instream flow management during low-flow conditions and share local management approaches which may apply in different spatial contexts. This synthesis has been made possible through interdisciplinary collaboration and team science training facilitated by the USGS Climate Adaptation Postdoctoral Fellows program and NCEAS. In addition to presenting our approach and preliminary results, we will introduce ourselves as the Future of Aquatic Flows cohort and discuss highlights, challenges encountered, and lessons learned over the past year.

Speakers:

Yog Aryal, Indiana University, Midwest Climate Adaptation Science Center (CASC)

Jenny Pensky, University of Colorado Boulder, North Central CASC

Megan Behnke, University of Alaska, Alaska CASC

Jay Wimhurst, University of Oklahoma, South Central CASC

Farah Nusrat, Utah State University, Southwest CASC

Charlotte Lee, North Carolina State University, Southeast CASC

Questions, comments, or concerns?

Contact: roundtable-org@nceas.ucsb.edu