Baker’s research examines processes at the land-ocean interface, a highly dynamic region with fragile ecosystems, progressively vulnerable communities, and coastal hazards further magnified by a changing climate. Her research integrates laboratory experimentation with numerical modeling and remotely sensed field observations to build our fundamental understanding of hydrodynamics in coastal regions. The goals of her research include informing predictions of coastal water quality, shoreline evolution, and other coastal hazards and improving coastal resiliency in changing environments. Her ongoing and planned projects include studying wave transformation in shallow waters, surf-shelf transport driven by eddy and rip current dynamics, wave-driven sediment transport, and coupled hydro- and morphodynamics in the context of extreme events.

Baker completed a bachelors degrees in Civil Engineering from Oregon State University and a Masters and PhD in Civil & Environmental Engineering from the University of Washington.

ACADEMIC APPOINTMENTS

• Assistant Professor, Civil and Environmental Engineering

LINKS

• Group Website: www.baker-coastal-lab.com