

Catalyzing STEM Training and Partnerships Through Comparative Analysis of Transferable Watershed Function in East River and Southern California Watersheds

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This project presents a vertically integrated set of mentor-focused research and experiential training to provide career pathways for diverse students in watershed analysis fields of study, while contributing to intellectual growth of science, technology, engineering, and math communities at a notable Hispanic-serving institution, California State University–Los Angeles (Cal State LA). The project aims to examine overall patterns of watershed and riparian function, including solute and nutrient flux and isotope hydrology along the course of the Los Angeles River and tributaries. The project also aims to understand how fire ecohydrology and extremes in flooding and drought affect chemistry and flows of the river. For enhanced intellectual growth, the project will leverage new capabilities and research directions within the Watershed Function Science Focus Area in the East River watershed of the Upper Colorado River Basin. In addition, research activities will engage Lawrence Berkeley National Laboratory, SLAC National Accelerator Laboratory, and Cal State LA faculty and students in a team environment, fostering a sense of belonging while cultivating scientific identity through independent projects. These collaborative efforts will also lead to joint publications, where students will be co-authors and, as appropriate, first authors.