

LONG-TERM HOUSEHOLD IMPACTS FROM POST-FIRE FLOODING

A McIntire-Stennis supported project



Post-fire flooding increasingly affects human populations down-slope from burned areas. Limited research has explored how human communities prepare for, experience, and recover from flood and debris events that interact with burned areas. Longitudinal efforts to restudy impacted populations can provide important insights into the resources that communities at risk of post-fire hazards need to advance risk adaptation in the years following a wildfire.

The Schultz Fire was ignited by an abandoned campfire on June 20, 2010, and burned 15,075 acres northeast of Flagstaff, Arizona. Shortly after, intense monsoon rains over the burned area caused heavy flooding that resulted in extensive damage to properties in neighborhoods downstream from the fire. A mixed-mode survey was administered by School of Forestry Ph.D. student Jack Burnett and Dr. Catrin Edgeley to households in that affected area ten years later in 2020. This research provided a longitudinal contrast to an earlier survey conducted with this population in 2011, one year after the Schultz Fire and subsequent floods.



COLLABORATION

This research was conducted and disseminated in partnership with the Ecological Restoration Institute (ERI), a state-level institute dedicated to solving problems related to forest health and unnatural wildfire.



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ERI, Coconino National Forest, Coconino County, and the City of Flagstaff

About McIntire-Stennis

The McIntire-Stennis program, a unique federal-state partnership, cultivates and delivers forestry and natural resource innovations for a better future. By advancing research and education that increases the understanding of emerging challenges and fosters the development of relevant solutions, the McIntire-Stennis program has ensured healthy resilient forests and communities and an exceptional natural resources workforce since 1962.



IMPACT

Findings from this research have been presented in an ERI white paper and a fact sheet, both of which have been disseminated to local, state, and federal-level policy makers and managers.



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questionnaires returned by residents in the 100-year flood risk area created by the Schultz Fire



78.2%

of survey respondents believe flood risk from the Schultz Fire is still present



\$12,111

survey respondents paid for out of pocket between 2010-2020