

Connected SCIENCE

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Preparing for Wildfire: Meeting communities where they're at

The Wildfire Research (WiRe¹) team, supported by USDA Forest Service, Rocky Mountain Research Station, is no stranger to engaging with residents and communities in fire-prone areas. They've been at it for over a decade—regularly refining their approach to reach the most people. Still, midway through a project in Lake County, Colorado, the WiRe team received almost no survey responses from households in three mobile home communities.




The WiRe team provides expertise and support to partners who collect data about wildfire risk on private land and surveys residents to learn how they perceive that risk. Their research answers the questions most important to community partners, who actively participate in these community-level research projects. The WiRe team understands that every community is distinct and that

working with local partners strengthens the value and applicability of their research.

WiRe's partners from the Colorado Leadville/Lake County Fire-Rescue (LLCFR) were not surprised by the lack of responses. Prior to the WiRe project, Fire Marshal Steve Boyle visited residents at their mobile homes as part of a program to install and check residential smoke detectors. During these visits, he learned that many residents spoke limited English. He also perceived that some households were reluctant to engage. Most concerning, he noted signs of high wildfire risk, such as homes close together and vegetation and other flammable items surrounding the homes.

The lack of responses from mobile home communities didn't catch the WiRe team by surprise either. They faced

¹ Pronounced Wy-REE

	Change/adaptation	Partner contributions	Goal
	Shortened the survey (from 16 to 3 pages)	Helped select a subset of survey questions	Accessibility
	Prioritized evacuation preparedness	Identified the need to prioritize evacuation preparedness; identified survey questions relevant to outreach	Fit local context and address local need
	Printed the survey in English and Spanish	Provided insights into community characteristics: residents primarily spoke Spanish, some might hesitate to share personal identifying information	Accessibility
	Removed questions about demographics and personal information (e.g., address)		Reduce concerns of potential misuse of information
	Adapted questions to fit context (e.g. "your home" versus "your property")		Fit local context and improve question clarity
	Printed "SURVEY" in large letters on the envelope	Insisted on this addition due to concerns that residents would be skeptical of the survey	Prevent confusion or misconceptions about package contents
	Included a Spanish language translation of the cover letter, which explained survey intent and encouraged participation	—	Clarify intent
	Included \$10 cash for completing the survey	—	Incentivize participation
	Fire department volunteers hand-delivered surveys and answered questions from recipients	Executed this task	Increase trust; strengthen partner relationship with communities
	Fire department volunteers did not wear official uniforms	Partner decision, due to familiarity with local community	Increase trust

Together, the WiRe team and Leadville/Lake County Fire-Rescue adapted the traditional WiRe Approach to more successfully engage residents of mobile home park communities in research about local wildfire risk. They adjusted the survey itself (orange section), the packet of survey materials (blue section), and survey delivery (green section).

similar challenges in a previous study in Washington State. Crucially, this time their partners had valuable insights into the social barriers that may have contributed to the low response rate. Further, the fire department was determined to work with these communities to reduce hazards and potential harm from wildfire.

Mobile home communities in the wildland-urban interface can be hard to reach, and for related reasons, they may be more vulnerable to wildfires than neighboring communities. While not necessarily physically difficult to reach, communication between residents and local wildfire officials or researchers can be a challenge. Residents tend to be lower income and therefore have fewer resources to dedicate to wildfire preparedness. Moreover, they often don't own the property on which they reside, so they have less control over wildfire risk reduction beyond their homes, which they either own or rent. These factors hinder the ability of residents to participate in wildfire risk mitigation activities, leaving them less connected to organizations and efforts that provide fire preparedness and community resources.

“In the case of a wildfire, getting people out alive is our priority. We need to know what they don't know in order to efficiently inform them on how to do that. But first, we need to connect with them and build trust. We want to make sure they realize the importance of preparing for a wildfire incident and having an evacuation plan,” said Boyle.

Together, the WiRē team and LLCFR adapted the traditional [WiRē approach](#) to better fit the local context, build trust among residents, and make it easy for residents to participate in the research study.

These modifications proved successful. Thirty-four households returned surveys for a 13 percent response rate. While this response is low compared to other WiRē studies, it is considered a strong turnout in social research. The insights and hands-on engagement by LLCFR enabled researchers to learn about risk mitigation in mobile home park communities. Further, LLCFR can use the outreach and study recommendations to continue building trust and advance wildfire preparedness efforts in these high-risk communities. To Boyle, the results made it clear: “There is need, the public wants to be informed. And they are looking to us for resources.”

FURTHER READING

Goolsby, J.B.; Brenkert-Smith, H.; Donovan, C.; [et al.]. 2024. [Preparing mobile home park residents for wildfire in Lake County, Colorado](#). Natural Hazards Center Quick Response Research Report Series, Report 366. Boulder, CO: Natural Hazards Center at University of Colorado Boulder.

MANAGEMENT IMPLICATIONS

- **Wildfire risk.** Compared to non-mobile homes, mobile homes had higher wildfire risk. Most mobile homes (86 percent) were rated very high or extreme risk, and the majority were situated within 10 feet from their neighbors (70 percent). Almost all homes had dense or overgrown vegetation or other combustibles (e.g., propane tanks) within 5 feet of the home.
- **Perceptions of wildfire risk.** Both mobile home park residents and non-mobile home residents perceived wildfire risk to their homes. About two-thirds of both groups believed their homes were at risk of wildfire.
- **Evacuation preparedness.** Fewer mobile home park residents were prepared to evacuate in the event of wildfire, but more were more interested in getting additional information about evacuation preparedness compared to non-mobile home residents.
- **Barriers to wildfire risk mitigation.** Mobile home park residents reported several barriers that prevent them from doing wildfire risk mitigation activities, including lack of information (56 percent), financial cost (44 percent), and lack of options for disposing combustible items in their communities (41 percent).

Contributors

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Steve Boyle is the Deputy Chief/Fire Marshal at the Leadville/Lake County Fire-Rescue.

The **Wildfire Research (WiRē) Center** supports evidence-based community wildfire education efforts.

Leadville/Lake County Fire-Rescue provides fire protection and emergency response to the city of Leadville and Lake County, Colorado. It is an all-hazards, community-based agency.

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Rocky Mountain Research Station researchers work at the forefront of science to improve the health and use of our Nation's forests and grasslands. More information about Forest Service research in the Rocky Mountain Region can be found [here](#).



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