

AFTER THE DISASTER GUIDEBOOK: A TOOLKIT FOR LANDOWNERS IMPACTED BY WILDFIRE

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Project Background

In 2020, Colorado experienced its worst wildfires in history. Many Extension agents were contacted to assist with disaster relief and evacuation. Following the fires, calls to county extension offices shifted to post-disaster questions like “What do I do now?” and “How can I recover my land?” Flooding and mudslides are expected in burn areas as a result of the fire’s reduction in groundcover, and preparation for these events is critical.

GOALS AND OBJECTIVES

- Develop partnerships with Extension agents, law enforcement, public information officers, emergency managers, and organizations like the Red Cross, Fire Adapted Colorado, NRCS, BLM, and others
- Research post-disaster recovery programs for landowners with a range of extension personnel and partners
- Research post-fire issues facing landowners and communities
- Utilize the information gathered to develop a statewide resource that can be populated with county specific information and pilot the guidebook in Mesa County, Colorado
- Create a guidebook, both online and in print, to help people in disaster zones work toward recovery



Nearly 11 months later, grass and native plants begin to grow again in the Pine Gulch fire burn scar as the land recovers. Photo credit: Channing Bice, CSU Student.

Communication and Community Resilience

- Pfefferbaum and Klomp (2013, p. 279) define **community resilience** as “individuals working together to foster collective response and recovery.”
- **Communication and information systems are critical** for community resilience. According to Houston et al. (2015), communication systems strengthen community meaning-making, information exchange, social support, and social capital.
- For a community to be resilient, it must have **social support** and **social capital** before, during, and after a disaster (Buikstra et al., 2010; Pfefferbaum & Klomp, 2013).

Guidebook Research and Development

A systematic needs assessment was conducted to better understand how the 2020 Colorado wildfires impacted rural landowners. Prior to conducting the needs assessment, secondary data and wildfire resources were collected from agencies and other community-based groups across the country.

PHASE 1: SYSTEMATIC RESOURCE REVIEW

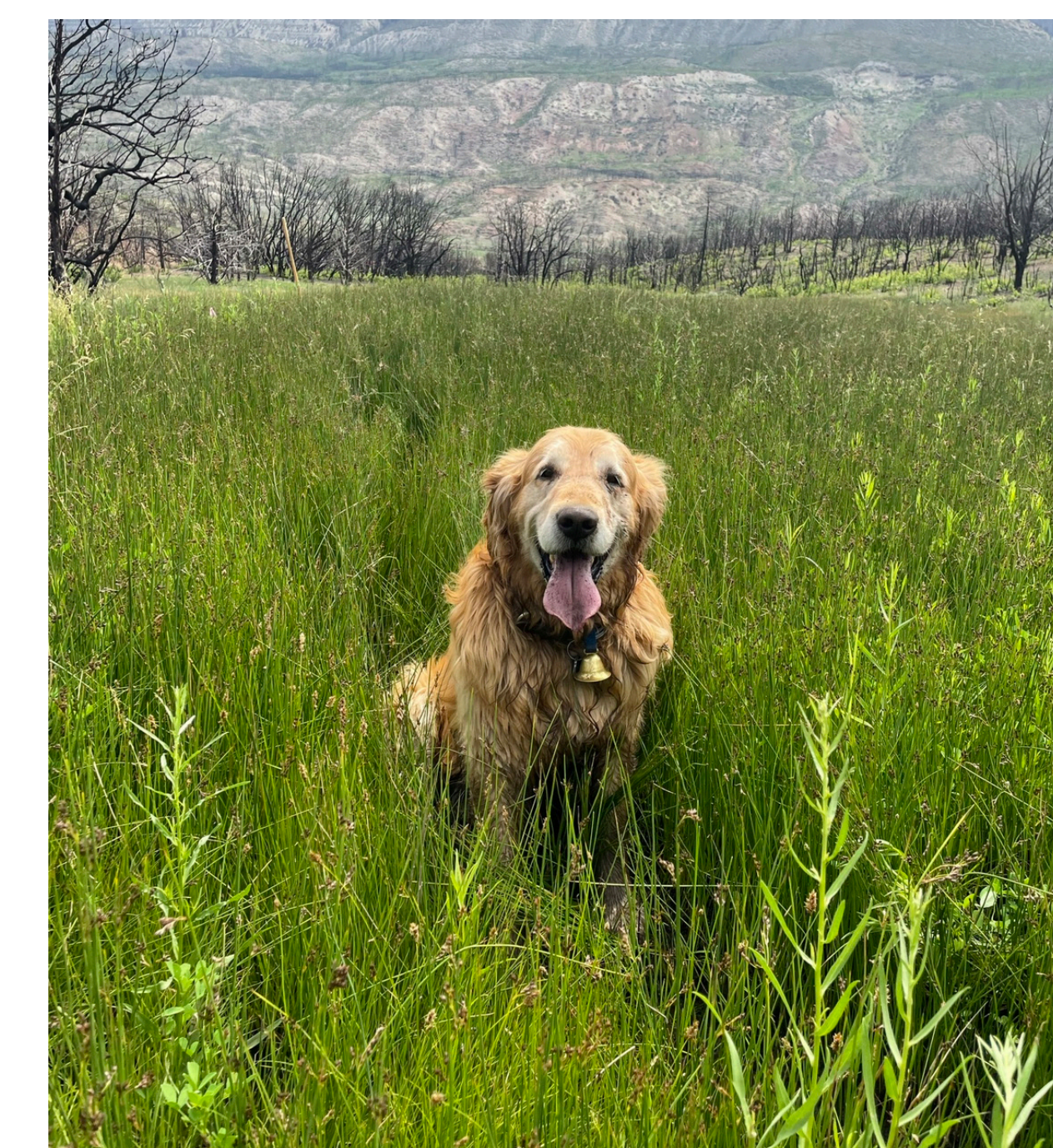
A systematic review of post-wildfire resources was gathered and sorted from various federal, state, local, non-profit, advocacy, and CSU sources (i.e., CSU Extension and Colorado State Forest Service). Over 180 types of relevant post-wildfire resources (websites, PDFs, fact sheets) on general fire recovery, health and safety, home, landscape, animal care, post-fire flooding, and local/state contacts were gathered.

PHASE 2: INTERVIEWS AND SITE VISITS

- Experts and landowners impacted by the 2020 Colorado wildfires were interviewed. Interviews were conducted to learn about the information survivors needed during post-fire recovery, where they looked for it and how they got it.
- **Expert Interviews:** Expert interviews are defined as interviews with state and local officials who assisted with community responses to one of the 2020 Colorado wildfires. Three expert interviews were conducted with CSU Extension agents from across the state as well as Mesa County officials.
 - **Landowner Interviews:** Three interviews with landowners who were directly impacted by the Pine Gulch and Cameron Peak Fires were conducted to ensure that research did not favor traditional expert voices over community voices. These insights aided in providing a community vision of what is important in the context of rural post-disaster recovery.
 - **Site visit:** I was able to visit Mesa County and the Pine Gulch burn scar in June. During this trip, two Mesa County officials and two landowners affected by Pine Gulch were interviewed in person.



Left to right: Susan Carter, Tom Brigham, Doug Dean, Channing Bice, Drew Walters, and Kamie Long during Pine Gulch Fire burn scar replanting. Photo credit: Kamie Long, CSFS



Good boy, Cash Brigham helps with replanting on his Dad, Tom's, property during June site visit to the Pine Gulch Fire burn scar. Photo credit: Channing Bice, CSU Student

PHASE 3: GUIDEBOOK DEVELOPMENT

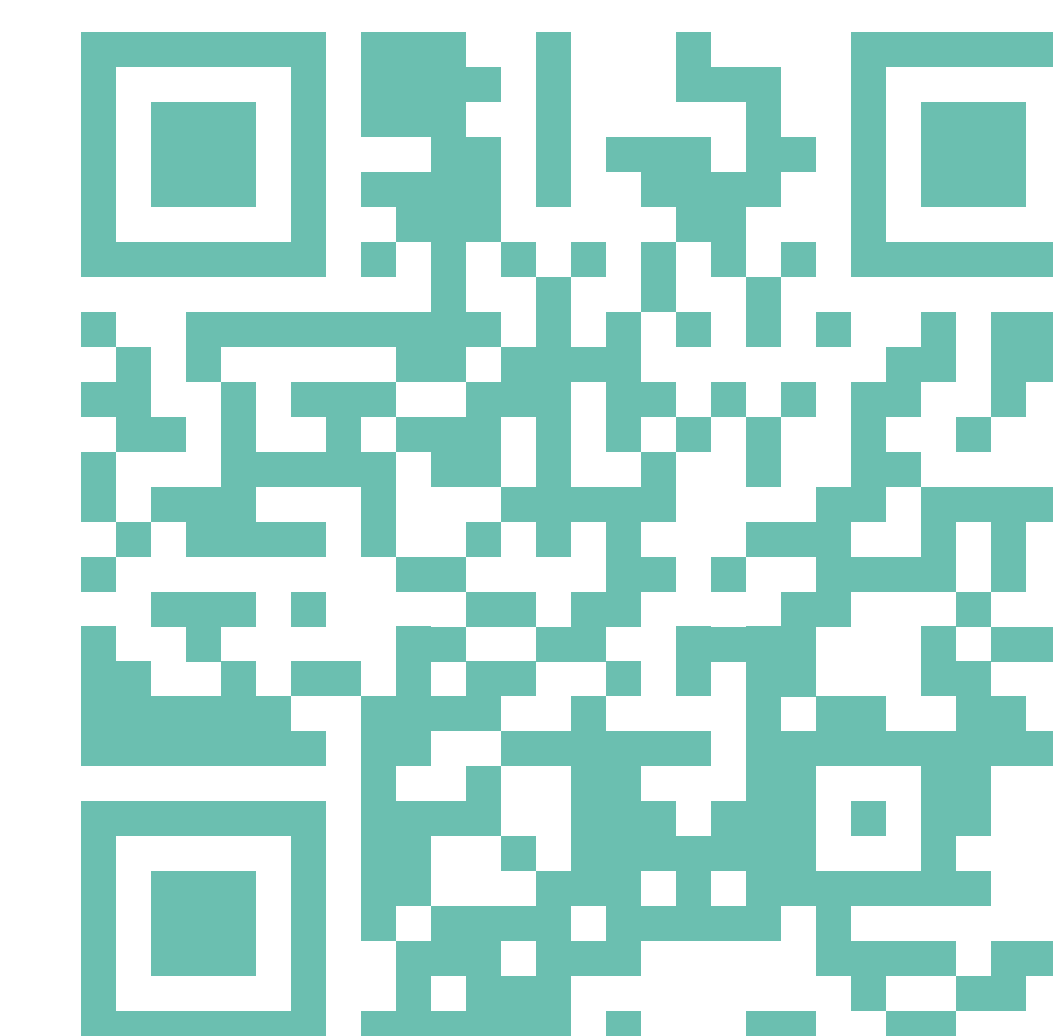
- The development of the guidebook was influenced by primary and secondary data sources analyzed during the needs assessment. The *After the Disaster* team decided that creating a guidebook in the form of a resource toolkit to empower survivors would be the best approach. This resource toolkit would deliver post-fire recovery information through visualizations, interactive checklists, and templates.
- Landowners’ perspectives revealed a clear preference for information that addressed the local context of landowner needs, so resources from CSU Extension, CSFS, and county government were prioritized, with state and federal sources supplemented as needed.
- The guidebook was created using Google Slides to create a living document that was user-friendly and easy to update for Extension agents during an emergency.

Learning Outcomes and Future Directions

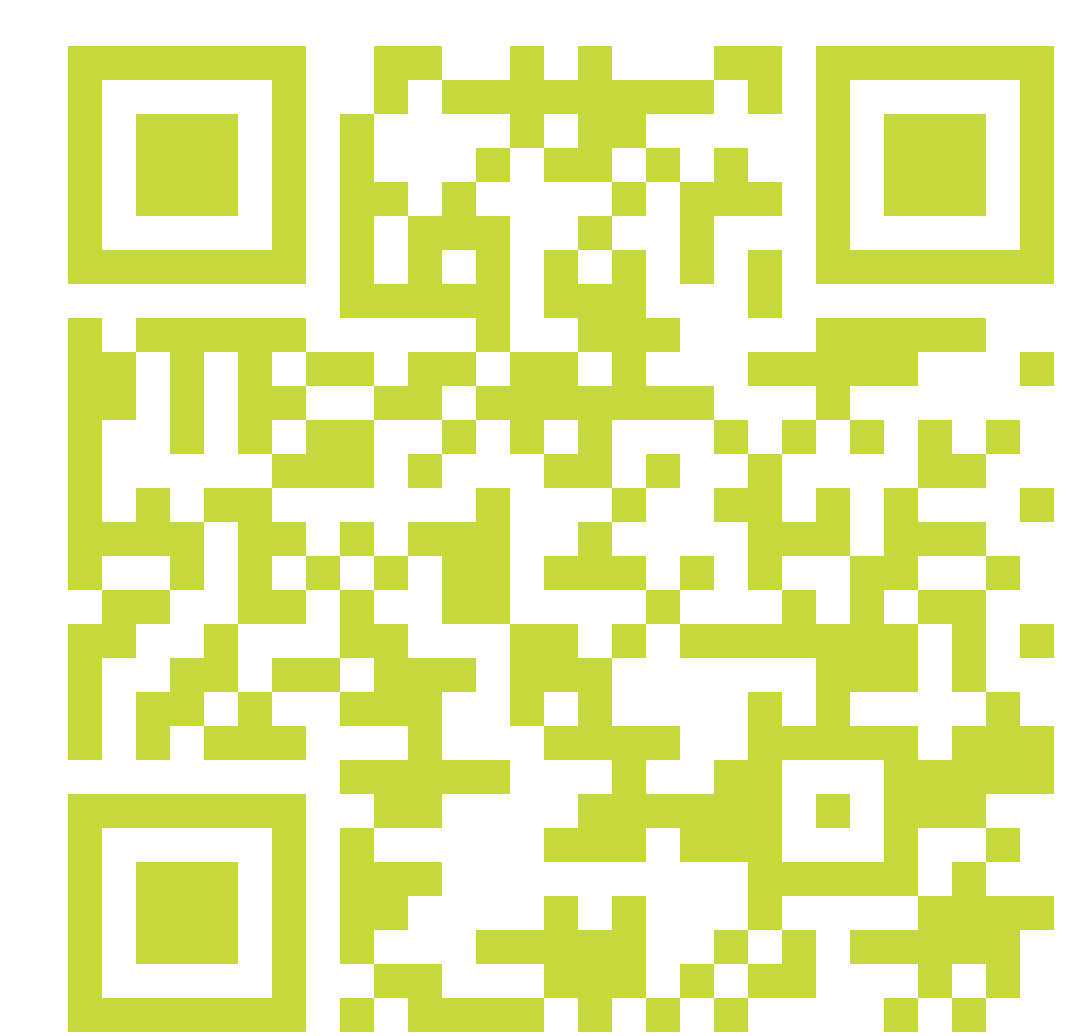
- Although there are several communication for prevention and preparedness, as climate change persists and natural disasters intensify, attention must also be paid to communicating during recovery phase of a crisis.
- The audience’s ability to process information during a crisis must be considered when developing messaging for recovery communication. More visuals, interactive checklists, and resources applicable to varying levels of fire damage should be considered to avoid information overload and promote self-efficacy.
- An interesting trend that emerged during research and development was the use of imagery (e.g., homes in flames, destroyed personal effects, chaotic evacuations) and color palettes (e.g., reds, oranges, browns) that re-traumatizes survivors in existing post-wildfire resources. This guidebook made a concerted effort to depict hopeful imagery of returning wildflowers and recovery work in burn scars and blue-green color palettes.
- Future research that examines the effects of communicating with optimistic imagery on perceived source credibility and self efficacy during recovery could be an interesting avenue of investigation.

Acknowledgements

- Tom Brigham, Landowner and Pine Gulch Fire Survivor, Garfield County, CO
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- Todd Hollenbeck, Deputy County Manager, Mesa County, CO
- Ellis Thompson-Ellis, Community Outreach Specialist, Grand Junction Fire Department
- Kamie Long, District Forester, Colorado State Forest Service
- Olivia Clark, Extension Director and Agent, CSU Extension: Grand County
- Karen Crumbaker, Agriculture & Natural Resources Agent, CSU Extension: Larimer County



To view the *After the Disaster Guidebook* for Mesa County, scan this QR code or visit bit.ly/AfterDisasterMesaCounty.



To get the *After the Disaster Guidebook Template*, scan this QR code or visit bit.ly/AfterDisasterTemplate. Go to File → Go to Make a Copy → Select Entire Presentation → and copy it to your Google Drive.

References

- Buikstra, E., Ross, H., King, C. A., Baker, P. G., Hegney, D., McLachlan, K., & Rogers-Clark, C. (2010). The components of resilience: Perceptions of an Australian rural community. *Journal of Community Psychology*, 38, 975-991.
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