

Colorado Division of Homeland Security
and Emergency Management

Marshall Fire

AFTER-ACTION REPORT

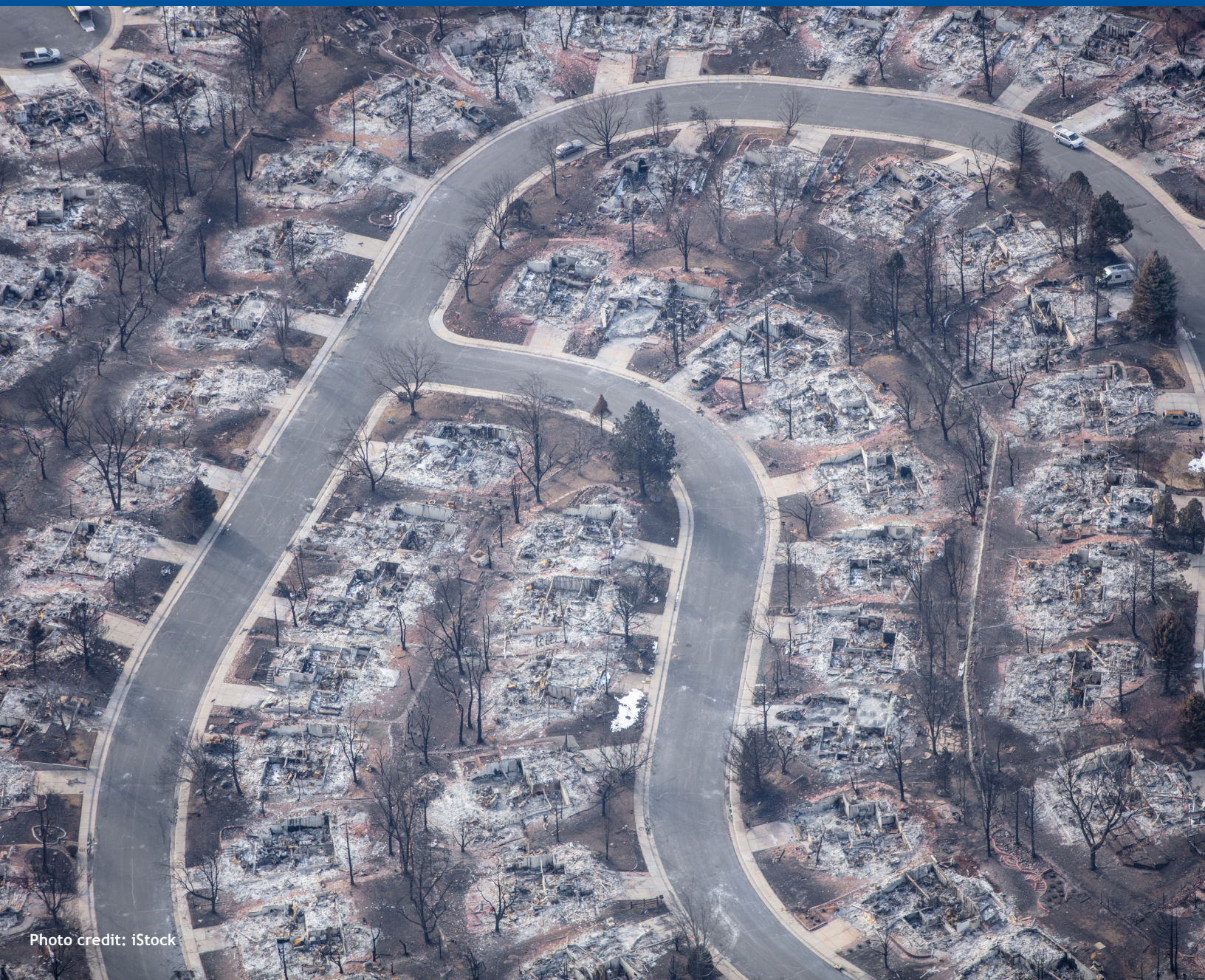


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HANDLING INSTRUCTIONS

This Marshall Fire After-Action Report (AAR) was commissioned by the Colorado Division of Homeland Security and Emergency Management (DHSEM) and is intended for DHSEM leadership and emergency preparedness and response staff. Please share only with the express permission of the Colorado DHSEM.

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EXECUTIVE SUMMARY

Incident Summary

In late December 2021, after Christmas and before New Year's Eve, Boulder County, Colorado, issued burn restrictions due to local conditions. An unusually wet spring followed by a dry summer and fall created a rich supply of dry and highly flammable grass, the perfect dry fuel for a fire. An outbreak of the ongoing COVID-19 pandemic left first responders and medical personnel short-handed.

On December 30, 2021, at approximately 11 a.m., a grassfire in Boulder County, Colorado, was reported. High winds with gusts of up to 115 mph promoted the rapid spread of the fire.

Three minutes after locating the fire, Mountain View Fire and Rescue Engine 2209 and Boulder Open Space Ranger 5077 determined the fire to be out of control and called for assistance. At 11:44 a.m., the Incident Commander (IC) ordered the evacuation of residents two miles downwind of the fire. By 1 p.m., evacuations had been ordered for tens of thousands of people within the Town of Superior, the City of Louisville, and unincorporated Boulder County.

Six hours after the fire was first reported, the wind diminished, and the fire stopped actively spreading. Snowfall later in the day assisted in firefighters' efforts to extinguish the fire, but also hampered overhaul operations. The firefighting phase of the incident essentially ended on December 31. The total damage was 6,200 acres burned and 1,169 homes destroyed, making the Marshall Fire the state's most destructive wildfire.

Casualties included eight injuries, one confirmed death, and one missing, presumed dead.

On June 8, 2023, officials released the cause of the fire. Investigation revealed there were initially two separate fires; one that was a reignition of a previously extinguished fire on private property and a second created by a downed power line resulting from extreme winds. The Boulder County District Attorney found there was insufficient evidence of a crime, and no charges were filed.



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Report Development

In early 2023, the DHSEM State Coordination Group hired an independent contractor to develop the AAR. Between April 2023 and May 2023, the AAR planning team engaged federal, state, and local department and agency employees and external partners across Colorado in a comprehensive information-gathering process that included a data call, document analysis, and interviews to inform the report. During its engagement, the State Coordination Group and AAR planning team convened multiple times to strategize and provide updates on the report's development.

The team interviewed 62 individuals representing 16 agencies, departments, and organizations. Using discretion and sensitivity throughout the process, the planning team acknowledged different perspectives among interview respondents, depending on their role and involvement in the response, resulting in a more targeted approach to accurately inform and prepare the AAR. The team also went to great lengths to critically analyze the diverse observations and their potential impacts on response and recovery functions.

Focus Area Findings

This report organizes all findings into specific themes (Focus Areas) generated from data collected in response to the fire through document analysis, surveys, and interviews. The output is a thorough review of the response, including what was done well, what could be improved, and overall lessons learned to help inform future responses. Each area for improvement is listed in the Improvement Plan (IP) and accompanied by a course of action to correct it.

Looking Ahead

The Colorado Department of Public Safety (CDPS) DHSEM intends to leverage this document as a learning and improvement tool to enhance awareness of and aggregate the experience gained during the response to the 2021 Marshall Fire. Strengths, potential best practices, and areas for improvement are detailed in the AAR. Lessons learned from this event will better prepare State and local response and recovery agencies and their cooperative partners for the future response and recovery efforts supporting wildland-urban interface fires as well as other future large-scale events of any type.

Recommended next steps to close identified gaps and improve future responses are detailed in the IP. The IP converts lessons learned from the Marshall Fire response into clear actions that result in improved capabilities to create a more resilient and response-ready Colorado. The IP describes the corrective actions a designated agency or department may take to address each recommendation presented in the AAR, who will be responsible for taking the action, and the estimated timeline for completion. The IP is a stand-alone document, separate from this AAR.

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INTRODUCTION

Purpose

The purpose of this After-Action Report (AAR) is to improve Colorado's response to and recovery from future wildland fires and other disasters. The findings within the document were identified through a thorough analysis of data collected predominately from personnel employed by federal, state, and local-level agencies and departments throughout Colorado and are not prescriptive for any specific agency or department. The report will serve as an unbiased informational product to influence future disaster planning and preparedness initiatives across the State of Colorado.

Scope

This report focuses on the 2021 Marshall Fire response and recovery activities that occurred within and between key federal, state, and local department and agency employees and external partners across Colorado beginning December 30, 2021, and ongoing as of the date of publication. The Marshall Fire posed unique challenges in Boulder County, Colorado, impacting responder and recovery personnel very differently.

The planning team used a targeted approach, including pre-identified participants, focus areas, and actions to determine the scope of the project, as follows.

Participants

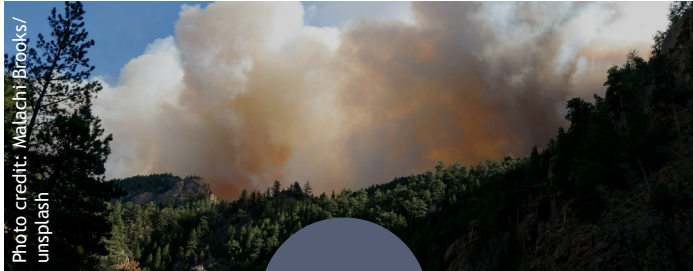
Agency and department representatives and stakeholders were eager to participate in the AAR with high levels of attendance at each session.

The following agencies, departments, and organizations participated in this process:

- Boulder County, Colorado
- City of Louisville, Colorado
- Colorado Division of Homeland Security and Emergency Management (DHSEM)
- Colorado Department of Human Services (CDHS)
- Colorado Department of Labor and Employment (CDLE)
- Colorado Department of Local Affairs (DOLA)
- Colorado Department of Public Health and Environment (CDPHE)
- Colorado Department of Regulatory Agencies (DORA) Division of Insurance (DOI)
- Colorado Office of the Governor
- Colorado Voluntary Organizations Active in Disaster (VOAD)
- Colorado State University - Boulder Extension
- Federal Emergency Management Agency (FEMA)
- Lutheran Family Services Rocky Mountains
- Mile High Flood District
- Town of Superior, Colorado
- United States Army Corp of Engineers (USACE)

Focus and Action Areas

The following focus areas and actions evaluated represent the categories of information that were targeted for collection and analysis to inform the AAR development process.



Focus Area

Context of an expedited presidential major disaster declaration process (expedited declaration process)

Damage assessment (DA)

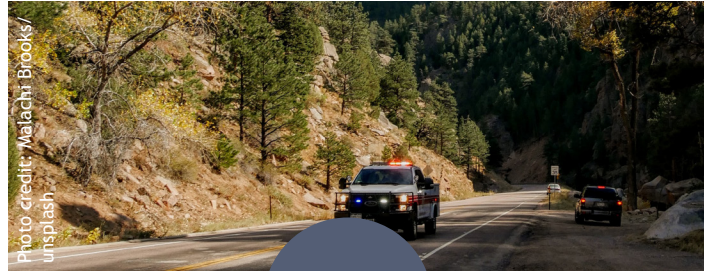
Debris management

Human health hazard monitoring for air, water, and soil quality (environmental monitoring for impacts on human health)

FEMA/State Joint Field Office (JFO) connection to affected governments (JFO and state/local government coordination)

Disaster housing recovery process and coordination

Federal program delivery among multiple Colorado State Departments (federal program delivery through State departments)



Actions Evaluated

Information exchange and leadership coordination between federal/state/local governments

Interagency lines of effort

Problem identification

Decision-making process and solution development

Policymaking

Actions to secure program funding

State coordination of federal programs

Engagement in local recovery programs and organizations

Program leadership and management

Program implementation roles and responsibilities

Process

Within the scope provided, the planning team utilized the following process for information collection, analysis, and dissemination.

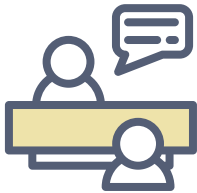
Data Collection

Data collection for this report was conducted in two phases: a data call and a series of focus group and individual interviews.



Data Call

Employees from participating agencies and departments were invited to upload relevant documents to a secure, web-based portal specifically developed to collect and store documents related to the preparation of this AAR. Source documents that were considered pertinent to each agency or department's planning, response, and recovery from the incident were provided.



Focus Groups and Individual Interviews

The project team conducted interviews with key government employees and select external partners to provide a qualitative analysis of Marshall Fire response efforts as derived from first-hand accounts of the incident. Using the State's pre-identified list of seven focus areas and 10 actions, the project team developed the interview question set.

From May 1 to May 19, 2023, 20 in-person and virtual interviews were conducted with 62 interviewees representing 16 government agencies and departments and their external partners. The initial list of interviewees was provided by DHSEM and was augmented by the project team as approved. Some interviews contained one participant, while others contained multiple participants. The project team scheduled approved interview candidates for 30-120 minute in-person and virtual group interviews. Meetings were facilitated by a lead facilitator and a notetaker.

Before each interview, the project team conducted research to ascertain the interviewees' job functions and any other publicly available information. If appropriate, the notetaker revised the interview questions based on this background information. The notetaker removed irrelevant interview questions, and additional information was injected, where appropriate, to customize questions.

The interview began with introductions of participants and included a snapshot of the project's purpose and reason for the interview. At the conclusion of each interview, participants were asked to provide any documents mentioned during the interview to help support incident analysis.

Appendix C provides a list of interview questions drawn from for each interview.

Observations, Analysis, and Recommendations

The project team reviewed all information gathered through the data call and interviews to identify observations, including strengths, best practices, and areas for improvement. Observations are only included when the information or perspective is received from multiple sources or when information can be verified independently. In performing root cause analysis, the project team then returned to the available information to dig deeper and collect, organize, and validate data related to these observations, using well-established root-cause analysis tools, including "The Five Whys" and "Human Factors Analysis." Finally, the project

team used industry best practices as well as their practitioner knowledge and experience working with dozens of jurisdictions to develop recommendations. Recommendation suggestions from interview participants are considered and are incorporated, when appropriate.

Statement of Accuracy

The views and statements expressed within this report were validated by multiple sources independent of one another. However, interviews are inherently subjective. Interviews represent stakeholders' recollection and analysis of events and actions. Representatives participated in interviews on behalf of departments or incident management units but may not incorporate every viewpoint or event in their responses.

OBSERVATIONS AND RECOMMENDATIONS

Focus Area: Expedited Declaration Process

Observation 1.1: Receipt of the Expedited Declaration

Observation

An expedited declaration made funding available quickly and reduced the overall cost to impacted jurisdictions.

Category: Strength

Analysis

The scope and scale of the disaster made it straightforward to work with the FEMA Administrator to obtain a Fire Management Assistance Grant (FMAG) on December 30, 2021, followed shortly by a federal disaster declaration on December 31, 2021. The County was also granted the 90/10 cost share adjustment and the state provided 5%, leaving the County with only a 5% match. The County received Public Assistance (PA) categories A-B and Individual Assistance (IA) immediately and PA C-G on February 22, 2022. The quick release of IA was seen as beneficial to the survivors.

Recommendations

- Review state policies and procedures to ensure the state is in the best position to maximize the benefits of an expedited declaration.
- Review state policies and procedures to ensure that the state is in a position to assist local jurisdictions to maximize the benefits of an expedited declaration.

Observation 1.2: Impact of Repeated Expedited Declarations

Observation

Repeated expedited declarations have impacted expectations, understanding, and formalization of the declaration processes.

Category: Area for Improvement

Analysis

Colorado received expedited declarations several times in a row before the Marshall Fire. This created a perception among some local and state officials that future declarations will also happen expeditiously, circumventing many of the processes needed to receive a declaration under normal circumstances (including data collection, submission deadlines, and a demonstration of unmet needs). Consequently, these processes are not clearly defined in local and state plans, and jurisdictions lack experience in the process.

Recommendations

- Provide education and training opportunities regarding the disaster declaration process, including requirements for IA and PA.
- Review and update response and recovery plans to ensure sufficient guidance and tools to streamline the request process.
- Incorporate talking points regarding the disaster declaration process for state-led meetings and conferences, emphasizing that expedited declarations should not be assumed.

Observation 1.3: Timeline of the Expedited Declaration

Observation

The expedited declaration reduced the timeline to prepare for federal assistance programs and resulted in some programs being released before they were needed, or before staff were prepared to implement them.

Category: Area for Improvement

Analysis

The speed of the declaration meant that funds were allocated, and resources were provided before there was a clear picture of the actual need. It also started the clock on deadlines for program applications and eligibility sooner than usual, creating pressure on the public and officials to meet these targets during a period when attention was focused on immediate needs and emotions were still high. Typically, it can take days to weeks to receive a declaration and this time is spent collecting information, so the jurisdiction is ready to meet deadline requirements.

Consequently, some programs ended, and resources were demobilized before the need for them had dissipated, and several participants noted that they felt more may have been able to be achieved if the declaration had come later. Local jurisdictions also noted that these timelines made it difficult to gather the information needed to receive full cost reimbursement.

■ Hazard Mitigation Grant Program (HMGP)

As an example, the declaration began the 12-month window to submit applications for HMGP funding to implement mitigation projects during recovery. There was pressure to collapse this timeline even more, as FEMA strongly encouraged local jurisdictions to submit applications early, indicating that they would be able to turn these around within four to five months. This was frustrating to several state and local jurisdiction staff who noted that HMGP funding requests typically take 15 months to review and receive approval.

■ Mental Health Services

In another example, mental health services had to be established within 14 days. Fortunately, the CDPHE has existing relationships in Boulder County with these partners due to prior disasters, and this allowed the department to meet the deadline. It was noted that even with these relationships, the process still took most of the 14 days and staff felt it was unlikely that they would have been successful in another jurisdiction.

■ Debris

Additionally, the speed of implementation of the debris program created difficulties for many. Local jurisdictional staff noted that numerous individuals did not receive the information they needed about the debris removal program to support informed decisions. They estimate that approximately 50% of people joined the debris program and 50% opted out. Of those who opted out, many did so because of a lack of information and later regretted it. Furthermore, the curbside pickup was only available for two weeks; many people were still in trauma and were not ready to perform this work.

■ FEMA Funding

Lastly, the question of eligibility for IA programs was questioned by several state officials as many of the survivors had incomes well above the median. A similar question was raised regarding the award of the grant of the 90/10 cost share agreement. However, nongovernmental organizations (NGOs) and similar partner agencies reported that they found a clear need within the community for individual and housing assistance programs. They observed that many assumed survivors were privileged; this caused detriment to the response and recovery effort.

Recommendations

- Engage FEMA to evaluate potential solutions (e.g., provide a grace period for expedited presidential disaster declarations, extending the official “start” of the disaster, and establishing space for the state to set up programs as needed; lengthen registration/application periods, provide flexibility within the appeals process). A regular disaster declaration provides time both for communities to end the response phase of a disaster and for states to set up recovery programs.
- Review state policies and procedures to ensure the state is in the best position to maximize the benefits of an expedited declaration.
- Review state policies and procedures to ensure that the state is in a position to assist local jurisdictions to maximize the benefits of an expedited declaration.

Observation 1.4: State and Disaster Assistance

Observation

The state provided financial assistance for individual recovery; however, the program may not be strong enough to support a larger disaster without a federal declaration.

Category: Area for Improvement

Analysis

DOLA allocated \$1,500 in emergency funds for each individual impacted, which were distributed early and proved to be helpful. However, if federal funding is not granted in a future disaster, it may be insufficient to support impacted individuals.

FEMA requires local jurisdictions and states to provide initial assistance following a disaster using local and state resources prior to FEMA making funds available. This increases the likelihood of the state having to activate a state-led IA program, particularly if they do not receive an expedited declaration. While the state did distribute funds for the Marshall Fire, the amount needed will likely be more significant without a federal declaration. In addition, more resources will be required to manage a state-led IA program.

Generally, state and federal disaster assistance is expected to support individuals and households with recovering from a disaster, but a level of responsibility remains with the individual to prepare for such an event. Perspectives differ as to the level of assistance the state should provide, and which agency or agencies should provide that assistance.

Recommendations

- Develop a strategic plan for a state-led IA program for a disaster similar in size and scope to the Marshall Fire without a federal declaration.
- Hire and/or designate and support a state IA Program Officer to oversee efforts to build the program.

Observation 1.5: FEMA Public Assistance Small Project Threshold

Observation

The change to the FEMA PA small project threshold partway through recovery had significant impacts.

Category: Area for Improvement

Analysis

The PA small project threshold was increased partway through the recovery process, once projects had already been obligated. As a result, projects originally designated as large projects became designated as small projects with more restrictions on allowable cost changes. Prior to the change, localities submitted estimated costs for large projects with the understanding they could adjust the estimates at a later date. Once the small project threshold increased, they could no longer make those adjustments, and localities were responsible for any additional costs above the initial estimate.

The state is currently lobbying FEMA to revisit costs for declared disasters during this time.

Recommendation

- No recommendations noted. This was a FEMA decision over which the state and local jurisdictions had no control; however, the impact was important to include in the report.

OBSERVATIONS AND RECOMMENDATIONS

Focus Area: Damage Assessment

Observation 2.1: Damage Assessment Coordination

Observation

Lack of an established local/state coordinated DA process and structure may impede future efforts when seeking declarations.

Category: Area for Improvement

Analysis

Although Boulder County was successful in conducting damage assessments, this may be largely due to the County's prior disaster experience and administrative capacity. Concern was expressed that not all counties have the same capacity to perform this work within the 30-day window required for a FEMA Joint Preliminary Damage Assessment (PDA) request.

Additionally, damage assessments at the local level for IA were coordinated directly with FEMA, reducing the state's visibility of the data. State officials acknowledged that the state lacks a full-time IA Program Officer and stated that existing procedures for coordinating damage assessments with local and federal officials should be reevaluated. Local officials also noted confusion about what constitutes damage (e.g., smoke, water) and when the damage assessment process ends (observing that some damage increases over time).

Note: Following the Marshall Fire, the state has begun the process to implement the use of Crisis Track (the same program used by Boulder County) for PA DA information. Some expressed a desire to widen the scope to include IA DA information.

Recommendations

- Coordinate with stakeholders to provide recovery outreach, including the development of a damage assessment toolkit that local jurisdictions can use to better understand and standardize the process of damage assessments (e.g., roles and responsibilities, damage levels, use of Crisis Track software, etc.).
- Include disaster assistance program structures in state and local emergency planning.
- Hire and/or designate and support a state IA Program Officer to oversee efforts to build the program.

Observation 2.2: Damage Assessment and the Environment

Observation

Damage assessment and rebuilding was hindered by environmental factors.

Category: Area for Improvement

Analysis

The unusual timing of this wildfire made damage assessment and rebuilding difficult. The area experienced snowfall on the day following the incident, making it challenging to validate damages, especially those in-ground and tree fall. Contractors could not pour foundations during the remaining winter months, impeding the ability to start rebuilding for those who were ready.

Note: Although the weather impeded efforts, it is important to recognize that rebuilding from the Marshall Fire has occurred significantly faster than typical under similar circumstances.

Recommendation

- This observation is critical to capture and acknowledge as a challenge; however, recommendations for this observation are beyond the purview of the state and local governments.

OBSERVATIONS AND RECOMMENDATIONS

Focus Area: Debris Management

Observation 3.1: Federal Support of Debris Management

Observation

Rapid deployment of the USACE supported speedy debris removal; this in turn allowed for a faster transition to building permits and rebuilding.

Category: Potential Best Practice

Analysis

FEMA contracted with the USACE to provide technical assistance to the state and local government, along with a team of debris monitors. The USACE implemented a survey and dashboard, built based on knowledge gained in California and Oregon wildfire responses in 2021 and 2022, to support the mission. The survey tool was available in the field with or without access to Wi-Fi. These platforms worked well but belonged to the federal government and were not available for County use.

Recommendations

- Conduct additional analysis of strengths and weaknesses of wildfire response in other states; identify ways to incorporate smart ideas into law, policy, and operations while still respecting Colorado's unique circumstances.
- Engage FEMA to create data-sharing agreements with USACE and other federal partners, as appropriate, that would allow the state to view data gathered using federal disaster response and recovery tools, such as the debris management survey and dashboard.

Observation 3.2: Debris Removal Approach

Observation

The contract revision to parcel cost for debris removal vs. tonnage provided numerous benefits.

Category: Potential Best Practice

Analysis

To streamline debris removal, those involved with the bidding process decided to incentivize contractors by offering a per parcel bid approach instead of the traditional method of pricing by tonnage. This approach:

- Reduced the cost from about \$110,000 per parcel to \$53,000 per parcel.
- Removed the extra labor involved with detailed monitoring for fraud.
- Incentivized the contractor to do the work as efficiently as possible, since the price was the same per parcel regardless.
- Increased safety because trucks were not encouraged to overload.
- Streamlined debris streams into three straightforward categories - metal, concrete, and ash and debris - creating further efficiencies.

Notes: It was observed that incentivizing contractors worked well because this was a high-density area; incentivization would likely not work as well in a rural area.

Recommendation

- Develop sample resources for communities to use to mirror this program where applicable. These resources could include sample Request for Proposal (RFP) language, sample contracting language, and program guidance.

Observation 3.3: Barriers to Recycling

Observation

Incorporating a recycling stream in debris management was hindered by a lack of time and funding.

Category: Area for Improvement

Analysis

Boulder County wanted to recycle concrete and other materials during the debris management process. Many of the properties impacted by the fire were older, creating a need to test for asbestos before recycling those materials. This required additional time and funding, and the decision was made to proceed without pursuing debris reduction in this manner.

Recommendations

- Research debris reduction methods and develop procedures to aid in the identification and sorting of materials that could be reduced through recycling, burning/incineration, chipping and grinding, and composting.
- Encourage the development of debris plans that include requirements for debris testing, support services needed for debris testing, and potential funding streams to ensure that materials meet the environmental health goals of local communities and requirements of service providers, such as landfills that provide applicable waste management services.

Observation 3.4: Debris Task Force and Coordination

Observation

The establishment of a debris task force supported coordination efforts and helped to increase efficiency.

Category: Potential Best Practice

Analysis

The level of coordination between federal, state, and local entities for debris management was significant. Boulder County oversaw debris removal, the state oversaw debris monitoring, and USACE provided technical assistance and debris monitoring on behalf of FEMA.

The establishment of a debris task force was done after seeing the benefit it provided in California. This task force allowed subject matter experts and decision-makers to come together on a call to resolve issues quickly. This was especially beneficial for questions related to Private Property Debris Removal (PPDR) (e.g., A question about hazardous materials in burned cars was resolved immediately since both the Environmental Protection Agency and CDPHE were on the call). Debris management was completed ahead of schedule, demonstrating the effectiveness of the coordination of all involved.

Recommendations

- Develop a framework for a debris management task force that can be implemented in any of Colorado's counties and communities, including parameters for key stakeholders and sample topics for each task force to discuss as a guide for the task force's activities.
- Develop just-in-time training modules to help guide debris management activities, including the activities of a potential debris management task force.

Observation 3.5: Debris Management Pre-Planning

Observation

A lack of pre-planning slowed initial debris management efforts and reduced the ability to recoup costs.

Category: Area for Improvement

Analysis

The state lacks a debris management plan. Boulder County's debris plan was created in response to the 2013 floods, with a strong focus on vegetative debris, and was not suitable for the Marshall Fire. County officials also noted that their prior plan failed to take into consideration the needs of different communities, clear designation of safety standards backed by science, and coordination with the state.

Other observed gaps include a lack of clearly defined roles and responsibilities; standards for soil sampling; an understanding of what was reimbursable; debris handling procedures; prioritization of removal; the impact of debris on emergency access points; and private property debris removal. The lack of an approved plan with all required elements meant that not all incurred costs were eligible for cost recovery.

Officials at both local and state levels noted that while Boulder County ran the debris removal for this incident, future debris removal efforts should be managed by the state due to the risk and financial and administrative burden. These participants perceived that Boulder County was successful due to their prior disaster experience and administrative capacity, and that smaller communities, especially those that are economically disadvantaged, could fail under similar circumstances. For future efforts it was also acknowledged that hazard trees, while not an issue for this incident, need to be a part of pre-planning efforts.

Recommendations

- Develop a state debris management plan that guides state activities during a debris operation.
- Develop guidance and templates for local debris operations plans that are Colorado-specific.
- Secure pre-disaster contracts for debris management at the state level.

OBSERVATIONS AND RECOMMENDATIONS

Focus Area: Environmental Monitoring for Impacts to Human Health

Observation 4.1: Water System Contamination

Observation

The contamination of the water system in Superior was overcome through multiple partnerships.

Category: Strength

Analysis

The number of homes impacted in a short amount of time compromised the water systems in the Town of Superior and the City of Louisville. The communities were unable to keep up with the demands of firefighters as they battled the fire. To pressurize the system, the Louisville Public Works Director and staff decided to allow untreated water to flow into the system, thereby contaminating the entire system with non-potable water. This act was applauded by many but left the jurisdiction with the need to decontaminate the system.

Experts from Purdue provided technical assistance, and neighboring jurisdictions helped with flushing the system. What would normally have taken a month was achieved in four days with their help.

Recommendation

- No specific recommendations. This was an incident-specific success.

Observation 4.2: Environmental Monitoring Standards

Observation

A lack of adopted standards for environmental monitoring led to confusion, conflict, and an inability to recoup costs.

Category: Area for Improvement

Analysis

The lack of adopted standards for environmental monitoring led to numerous issues, complicating response and recovery efforts.

While hundreds of homes were burned, hundreds more were impacted by smoke and ash. Without an established standard for cleaning these homes, homeowners found themselves in disputes with the insurance companies about coverage for returning homes to livable spaces. While the DORA DOI was able to mediate many of these conflicts, the issue has not been entirely resolved and some individuals with preexisting conditions remain in temporary housing arrangements while awaiting their homes to be cleaned to their satisfaction.

Residents also expressed concerns over air quality and ash exposure. Some, including farmers, raised questions about whether cattle could graze on land that was downwind of the impacted area. Local officials and residents were frustrated by the lack of standards and conflicts between public safety and public health. While CDPHE voiced strong opposition to allowing individuals to sift ash, others argued that it was important to allow residents to do so to recover heritage and other items of importance and pointed to a lack of established restrictions in both Colorado and other states on this issue. The confusion increased the public information burden on communities as local governments were left to field a significant number of calls on the topic.

The lack of standards for soil sampling and scraping made it difficult for homeowners. Some began cleanup soon after the fire and utilized their insurance to do so. Later, when officials decided to set a standard of 5" scraping, some of these individuals had already expended their reimbursement and were left to make up the difference.

Note: It is difficult to establish soil standards in Colorado due to its history of heavy metal mining and the natural occurrence of these substances in existing soils. Any established standard would not only affect disaster recovery but would impact building permitting at all times.

The lack of established standards for air, water, and soil sampling, as well as a lack of guidance on cleaning standards for homes and sifting ash, meant that activities related to these were not reimbursable by FEMA. These standards must be established before an incident to be considered for cost reimbursement.

Recommendation

- Coordinate between federal, state, and local agencies to establish opt-in air, water, and soil safety standards that can serve as a "safety baseline" for those communities that wish to adopt them pre-disaster.

OBSERVATIONS AND RECOMMENDATIONS

Focus Area: Joint Field Office and State/Local Government Coordination

Observation 5.1: State as a Partner

Observation

The state was viewed as a helpful partner in several areas.

Category: Strength

Analysis

Local governments indicated the state was helpful and facilitated successful operations. Some examples included a state-run donations center, state advocacy for PA, and serving as a liaison between Boulder County and FEMA. The DORA DOI was also recognized for effectively assisting local governments and advocating for homeowners and renters.

Recommendation

- No specific recommendations. The state proactively assisted recovery efforts in multiple ways.

Observation 5.2: Pre-Existing Relationships

Observation

Pre-existing relationships helped with speed and ease of implementation.

Category: Strength

Analysis

Many individuals interviewed commented on the benefit of preexisting relationships. These relationships were credited with the ease with which structures used in previous incidents were reactivated, the ability to talk through difficult issues, knowledge about preferred approaches, and familiarity with who could be relied upon for subject matter expertise and program implementation. State representatives spoke particularly highly of the Federal Coordinating Officer (FCO) assigned to the JFO and enjoyed the relationship they established.

Recommendation

- Continue to encourage stakeholders to build pre-disaster relationships with the people and agencies they may be coordinating with during response and recovery.

Observation 5.3: Communication Flow and Timeliness

Observation

State and local jurisdictions developed best practices and observed difficulties related to communication flow between levels of government.

Category: Best Practice and Area for Improvement

Analysis

DHSEM established joint calls between the state and local jurisdictions at the onset of the disaster and maintained them through March 2023. These began as a daily occurrence and became less frequent over time as

the operational flow slowed, eventually transpiring once a week. Attendees included a small group of decision-makers relevant to the operational focus at the time which allowed them to focus on resolving contentious or complicated issues. It is believed this was extremely beneficial and should be institutionalized for future disasters. For this meeting and others, participants noted that partners were constantly evaluating the timing and frequency of meetings to ensure needs were being met.

Officials from the Town of Superior, the City of Louisville, and Boulder County stated they were unclear on the information needs of state and federal officials, and information requests would often come from multiple directions instead of being consolidated through a request for information (RFI) process. The lack of such a process was a draw on already strained resources. Furthermore, locals felt that information was not being shared with them, leaving them unable to meet the public information demands of the community. On the occasions when information was provided, it was often slow to come, incorrect, or conflicting. The lack of timely and accurate information was a detriment to community trust and impacted decision-making. One state agency commented that initially, they believed information flow was slow because entities were “dragging their feet,” but they later realized the sluggishness was a result of the intention by officials to share correct and complete information.

The communication of survivor information was another area of demonstrated difficulty. Boulder County completed an assessment early on to establish a list of addresses, but subsequent information was processed through an inefficient reporting structure that made it difficult to receive and consolidate real-time information. Some survivor information was housed in multiple VOAD databases and was not easily accessible. Ground teams for different levels of government shared information easily, but information that moved up and down through agencies was often outdated by the time it was reviewed.

Lastly, state officials observed barriers due to the need to work on information sharing between state agencies and federal partners. One official stated that “the FEMA sharing agreement is the most bureaucratic and stupid thing ever;” and that it does not function as a sharing agreement but instead as a list of things that cannot be shared and thus hinders the state’s ability to utilize data - something FEMA had remarked they wish the state could do more.

Recommendations

- Standardize coordination calls used during the Marshall Fire and incorporate the practice into plans.
- Map out Marshall Fire communication flows to identify successful practices. Capture such practices in a plan and/or playbook to be used in future disasters.
- Identify Essential Elements of Information (EEI) required by the state and local governments and incorporate communication of EEI into plans and/or playbooks.

Observation 5.4: Organizational Structure Conflict

Observation

There was conflict between the JFO and the state regarding roles and organizational structure.

Category: Area for Improvement

Analysis

While DSHM’s organizational structure provides similar functions as outlined in the National Incident Management System (NIMS), it does not adhere to traditional models prescribed by the guidance. This created difficulties in coordination and conflict between some federal officials and the agency. FEMA Region VIII’s office is located near

the State Emergency Operations Center (SEOC) and these partners are accustomed to the agency's composition. However, due to the size and complexity of the Marshall Fire, FEMA Region VIII was augmented by surge staff including reservists, cadre, and Emergency Management Assistance Compact (EMAC) requested assistance.

DSHEM staff were aware at the incident onset that it was possible this would become an issue, so they worked quickly to document and codify their structure, especially the recovery organization structure. When surge staff arrived, some individuals pushed the state to organize into an "accepted" model. Many state officials felt this was an attempt to command the situation instead of support it; this idea was detrimental to the relationship. Other state officials expressed frustration with the current structure and voiced a desire to move the emergency management organization into a traditional model.

The situation was further complicated by the lack of knowledge and experience of some state agency representatives who were unfamiliar with their roles in response and recovery operations. While some of these agency representatives were able to adjust to the emergency management organization structure, others struggled throughout the incident. Similarly, it was observed that the JFO Joint Information Center (JIC) did not function as a true JIC, as local and state Public Information Officers (PIO) were often excluded from meetings and were only briefed afterward.

Besides organizational structure, the state also differs from national standards operationally. Roles do not align with those recognized by FEMA, and planning is not conducted using the "Planning P" that has been accepted as a best practice nationally.

Recommendations

- Provide training on JFOs to DHSEM employees.
- Ensure the command structure utilized by the State of Colorado follows the NIMS framework. Consider using personnel operating in the JFO who are separate from those working in the SEOC and ensure that these positions follow NIMS standards. JFO positions can be separate from the day-to-day job of the person filling them.

Observation 5.5: Roles and Responsibility

Observation

There is a lack of understanding about the division of responsibility between local, state, and federal government, especially in the context of a home rule state.

Category: Area for Improvement

Analysis

There was confusion about who was responsible for certain policy decisions and operational functions throughout the response and recovery.

A key issue raised repeatedly was whether the state or local government was responsible for establishing environmental standards. Officials from Boulder County expressed a desire for the state to take the lead on environmental monitoring post-disaster, including the establishment of testing standards, paying for and/or directly conducting the testing, communicating with the public about testing (including translation), and establishing a state-led vendor prequalification process. Additionally, some requested the state indemnify local jurisdictions for the use of vendors established under state contracts and that the state provides a position on the

delivery of services to limited visa or undocumented immigrants, low-income households, and renters. Several town officials expressed a similar desire for more leadership by the state in these areas.

The Colorado Constitution allows the voters of local governments to establish a home rule charter if desired. Several attempts at establishing a countywide home rule charter in Boulder County have failed; however, the City of Louisville is a home rule municipality, while the Town of Superior is a statutory town. This affects the policymaking role of these jurisdictions. Home rule municipalities are not required to follow state statutes in matters of local and municipal concern and therefore enjoy freedom from state interference regarding local and municipal matters. Generally, home rule allows quicker response time to emergency situations since there is no need to wait for the entire state legislative process; however, legal uncertainties may arise when the municipality legislates in a relatively new area. The ultimate determination of whether a matter is truly of “local concern” requires an ad hoc determination in court.

While the City of Louisville does not currently address these issues in its home rule charter, it can pass emergency ordinances or establish ordinances ahead of another disaster. Statutory jurisdictions adhere to state laws, except when authorities are expressly granted to local jurisdictions.

Recommendation

- Engage state agencies to discuss roles and responsibilities during recovery, to find consensus, and ensure that consensus is reflected in Colorado’s emergency operations and recovery planning. Identify any necessary policy changes on the state and local levels that need to be addressed.

Observation 5.6: Use of Technology Platforms

Observation

The inability of local, state, and federal partners to utilize common technology platforms created inefficiencies and barriers to communication.

Category: Area for Improvement

Analysis

The Information Technology (IT) policies of most government agencies restrict employees from utilizing specific technology platforms and prohibit the use of others. This was exceedingly impactful during incident response and recovery.

For example, information collected by USACE was only available to FEMA but was inaccessible to local governments. FEMA officials noted that the agency acknowledges the issue and is working on the ability to integrate with local governments and that Survey 123 is currently being evaluated for use.

State officials observed that data was analyzed differently at different levels and FEMA data was not time stamped, so it was therefore unknown whether it was still relevant. One person remarked that the inability to work communally with the data was a hindrance. Another reflected that this led to collaboration using email, which was inefficient. Some personnel overcame the obstacle by creating personal accounts, but this opened them up to Freedom of Information Act requests and personal liability. Lastly, these policies made it difficult for state recovery personnel to view recovery websites established by NGOs. They explained they had to request access to these sites, per website, per IP address. The delays encumbered by this process further slowed their ability to complete tasks.

Recommendations

- Discuss IT and capabilities of different partners and stakeholders' pre-disaster and identify workarounds for technology issues.
- Establish data sharing agreements between federal, state, and local partners that can be implemented when disaster strikes to ensure information is coordinated, relevant, and timely.

Observation 5.7: Diverse Populations

Observation

Cultural barriers and fear of the federal government impacted the ability to assist members of some communities.

Category: Area for Improvement

Analysis

Some community members felt uncomfortable sharing information with and receiving assistance from federal agencies due to negative perceptions of “homeland security” and the potential risks of information being shared with Immigration and Customs Enforcement officials. In addition, such populations did not feel comfortable talking with people outside of their community and culture. Boulder County overcame this by requesting a federal representative of Hispanic descent to reach out to members of the community; however, this inclusion only became available after the request was made.

Recommendation

- Build a cadre of representatives of different communities across the state who can act as intermediaries between government agencies and affected populations.

OBSERVATIONS AND RECOMMENDATIONS

Focus Area: Disaster Housing Recovery – Process and Coordination

Observation 6.1: Legislative and Program Updates

Observation

The disaster mobilized support for new legislation and programs to address disaster preparedness, response, and recovery.

Category: Strength

Analysis

The fire brought to the forefront many questions about gaps in legislation that could support disaster preparedness, response, and recovery. Legislators desired to find solutions and sought education about national best practices, conflicting priorities, and other elements that would influence bill development.

On May 17, 2023, Governor Jared Polis signed nearly a dozen bills that came as a result of the fire and subsequent legislative process. The newly enacted legislation provides benefits to both current and future disaster survivors. These bills include requirements for insurers to offer additional coverage to homeowners to address things like inflation and building code changes, creates a state-managed insurer of last resort, requires landlords to remediate wildfire smoke damage, and exempts sales and use taxes on fire rebuilds and repairs. One measure also requires the DORA DOI to release an annual report providing cost estimates on rebuilding based on where a home is located, so that homeowners and insurers can evaluate whether a home is underinsured. Additionally, the state has created a board to develop statewide fire-resistant building codes along with a grant program that will assist homeowners to fire harden their properties.

One bill passed in May 2022, SB22-206, established two new programs to help communities recover and rebuild following disasters:

- The Disaster Resilience Rebuilding Program provides loans and grants to homeowners, businesses, and local governments rebuilding after a disaster emergency.
- The Disaster Recovery and Resilience Program provides loans and grants to homeowners, businesses, and local governments to cover costs related to rebuilding more resilient and energy-efficient homes and structures.

This legislation also created the Office of Climate Preparedness in the governor's office, tasked with coordinating disaster recovery efforts to better respond to natural disaster emergencies and developing a climate preparedness roadmap to ensure Colorado is better prepared for future climate-induced disasters.

Lastly, the 2022 Community Development Block Grant for Disaster Recovery (CDBG-DR) Allocation for the Marshall Fire and Straight Line Winds Event (Disaster Recovery-4634) granted funding support as part of the State of Colorado Housing Recovery Program for grants, forgivable loans, and traditional loans to provide homeowner/ landlord property rehabilitation and reconstruction, wind/wildfire hardening, and infrastructure planning, education, and capacity building.

Recommendations

- Incorporate contents of new disaster-related legislation into state and local recovery planning and procedures.
- Evaluate remaining gaps related to disaster housing that may be mitigated through legislation (e.g., renters, unhoused populations).

Observation 6.2: Insurance Education and Advocacy

Observation

United Policy Holders and DORA DOI were both praised for their survivor support and advocacy during recovery.

Category: Strength

Analysis

A 501(c)3 nonprofit group, United Policyholders, assisted survivors to educate them about their rights and support them through insurance claims processes in alignment with their Roadmap to Recovery program. This includes but is not limited to educational workshops, legal help, and other recovery tools.

This organization and the DORA DOI were also credited with advocating for survivors with insurers. While these entities do not have the authority to require insurer compliance, they have been successful with issues such as additional living expenses (ALE) extensions and payouts to provide for the cleansing of soft goods such as smoke-impacted furniture.

Recommendation

- No specific recommendations. Agencies were lauded for their assistance during the disaster.

Observation 6.3: Tracking Housing Needs

Observation

Information regarding housing needs and populations was challenging to obtain.

Category: Area for Improvement

Analysis

The State was unable to track affected individuals from shelter to temporary housing to long-term housing and, as a result, had a challenging time performing an effective needs assessment. Information received was often piecemeal and inaccurate in terms of the types of needs and the number of people with such needs.

Although the State activated Emergency Support Function (ESF) #6 Mass Care, it was perceived by many to not have been activated, indicating a lack of communication and coordination.

Others noted the influence of the Community Foundation Boulder County, which raised tens of millions of dollars in support of recovery. The foundation provided individuals and households with payments that could be used for whatever they needed. Many of them used this allocation to support their short-term housing needs. While acknowledging that this was beneficial, it also made it difficult to obtain an accurate count of how many would eventually need housing assistance.

Recommendations

- Through ESF #6, foster the development of processes to ensure housing data is collected and shared in a timely fashion, using previously identified EELs that can support the determination of need.
- Continue the development of a disaster survivor portal using Crisis Track (currently underway) to support this effort.
- Further evaluate the response of ESF #6, including communication and coordination protocols, to better understand gaps in these processes and the potential need for improvement.

Observation 6.4: Housing Planning

Observation

Pre-disaster housing planning did not meet the significant needs of the Marshall Fire.

Category: Area for Improvement

Analysis

The DOLA is the lead agency in the Housing Recovery Annex of the state Emergency Operations Plan (EOP); however, staff were not prepared to undertake the significant need for housing following the fire. Although the Housing Recovery Annex had been updated in April 2021, just eight months before the Marshall Fire, staff tasked with running the program were not familiar with it and had not trained or exercised it. Staff also indicated the updated annex was of a high level and did not include operational information DOLA staff felt was needed. As a result, staff reverted to the previous edition of the annex, which they felt contained more operational information. Specifically, they noted that it did not sufficiently address the transition period from short- to long-term recovery.

Recommendations

- Review the Housing Recovery Annex and ensure that it is helpful and contains enough detail to guide housing recovery operations post-disaster. Ensure buy-in and agreement from stakeholders with roles and responsibilities listed in the plan.
- Conduct regular training with all agencies having a role in housing.

Observation 6.5: Unified Housing Approach

Observation

State agencies and other stakeholders struggled to collaborate on housing programs.

Category: Area for Improvement

Analysis

Lacking strong leadership and organization within the short- and long-term housing function, entities struggled to find common ground and a unified approach. Participants noted a need for local and state officials to collaborate with developers, home builders, and others to solve problems. Following the 2013 floods, this was accomplished using a state-led disaster housing task force (SLDHTF), but despite an attempt by state and federal officials to create an operational framework, no similar organization was established in response to the Marshall Fire. The local government acknowledged its role in sheltering but was reliant on the state and federal government for long-term programs. The matter was complicated further by confusion about the role and responsibilities of the state agency tasked to lead housing recovery.

Recommendations

- Utilize FEMA's 2020 Planning Considerations: Disaster Housing to develop and implement an SLDHTF and associated disaster housing planning that establishes a framework, concept of operations, and roles and responsibilities of federal agencies, state agencies, local agencies, and community partners.
- Use an outside consultant as a neutral party to facilitate the development of a statewide housing plan that spells out a framework, concept of operations, and roles and responsibilities of federal agencies, state agencies, local agencies, and community partners. The consultant may be hired under the Office of the Governor or another agency without direct involvement in housing during the Marshall Fire.
- Train and exercise the statewide housing plan.

Observation 6.6: Underinsured Homeowners

Observation

Due to rising housing costs and a lack of information, many homeowners were underinsured.

Category: Area for Improvement

Analysis

The overlap of the Marshall Fire and the COVID-19 pandemic created an environment where the majority of those impacted were underinsured. The fire occurred during the peak of the climb of housing costs and at a time when the cost of wood and building materials were inflated due to high demand and supply chain issues. As a result, an estimated 36 million dollars in damages were not covered by insurance due to underinsurance. This was particularly true for people with older homes who had lived there for a long time.

Several pieces of legislation have since been introduced to mitigate some of these challenges:

- **Signed by Gov. Polis, May 12, 2023. HB23-1174: Homeowner's Insurance Underinsurance**

Concerning homeowner's insurance, and, in connection therewith, requiring certain reports related to the cost of reconstructing a home, increasing the notice requirement before an insurer can cancel or refuse to renew a homeowner's insurance policy, creating guaranteed replacement cost coverage in homeowner's insurance, and making an appropriation. <https://leg.colorado.gov/bills/hb23-1174>

- **Signed May 12, 2023. HB23-1288 Fair Access to Insurance Requirements Plan**

Concerning fair access to insurance coverage for persons unable to obtain insurance coverage for their real property. <https://leg.colorado.gov/bills/hb23-1288>

- **Signed June 6, 2022. HB22-1111. Insurance Coverage for Loss Declared Fire Disaster**

Creates more protection for those with a total loss as a result of fire. Concerning insurance coverage for insured losses incurred as a result of a declared fire disaster, and, in connection therewith, making an appropriation. <https://leg.colorado.gov/bills/hb22-1111>

Recommendation

- No specific recommendations. The state has implemented legislation and programs to support underinsured property owners.

Observation 6.7: Insurance Shortfalls

Observation

Insurance ALE benefits fell short of providing for all the needs of displaced homeowners and renters at the time the Marshall Fire occurred.

Category: Area for Improvement

Analysis

Displaced homeowners and renters faced challenges regarding property insurance related to the fire. Many insurance policies only provide 12 months of ALE after the fire. ALE is a standard part of most homeowners' and renters' insurance policies and pays for increased costs incurred if a homeowner or renter is temporarily unable to live in their home due to a covered loss (e.g., hotel or temporary rental fees, restaurant bills, pet boarding costs,

etc.). Twelve months was not sufficient for most homeowners, partially because winter conditions at the time of the incident hindered the ability to complete damage assessments and install concrete foundations for rebuilding.

While some states have policies that outline a baseline requiring ALE under specific conditions, Colorado does not. Thus, the DORA DOI did not have the authority to mandate an extension but did advocate for one and was successful at achieving a 24-month ALE agreement with most insurers. However, some feel this is still short of what is needed and continue to advocate for an additional extension.

Another concern was cleaning homes that had not been destroyed but were impacted by smoke and ash. Lacking a standard of cleanliness to be met, homeowners and renters found themselves at odds with insurers and each other for coverage of cleaning expenses. In some cases, renters wished to be released from their leases following the incident and disputed with landlords their right to do so. Renters also did not benefit from the ALE extensions due to perceived risk.

Recommendations

- Review and evaluate the State's role in the implementation of statewide statutory, condition-specific ALE requirements.
- Provide public outreach (or encourage local jurisdictions to provide public outreach) to homeowners and renters to support their understanding of disaster-related insurance.

Observation 6.8: Housing Supply

Observation

A short supply of available housing greatly influenced the recovery effort

Category: Area for Improvement

Analysis

An already extremely low housing inventory and ongoing disruptions in the supply chain, coupled with the extreme housing loss of this disaster, made housing a key issue during recovery and underscored the need to rebuild quickly. This created significant pressure by locals and the state for FEMA to provide direct housing, but direct housing could not be provided without evidence that it was necessary. The agency notes that households were allowed up to 18 months of housing vouchers without impacting their cap on other types of assistance. Many people were able to find short-term rentals, but rental prices skyrocketed with no legislation in place to prevent price gouging. Lack of affordability and availability left many families having to downsize their living space considerably. In Boulder County, officials relaxed regulations allowing people to camp and live in RVs to meet their needs.

Recommendation

- Develop mechanisms to conduct a clear housing assessment immediately following disaster, including coordination and data sharing amongst state and federal agencies.

Observation 6.9: Management of Expectations

Observation

Public misperceptions remain about the responsibilities assigned to individuals and the government before and after a disaster.

Category: Area for Improvement

Analysis

Participants repeatedly reported a broad public misperception that state and federal disaster programs were meant to make survivors “whole” following a disaster when, in actuality, these programs are meant to support survivor recovery but still rely on individual responsibility. Some individuals felt that FEMA’s messaging is misleading and that the application for assistance process instills a false sense of hope and leads to psychological impacts. Officials offered that messaging needs to be clearer about the role of disaster assistance and the responsibility of homeowners and renters in preparedness and recovery, although there was some disagreement about the appropriate messenger. While some advocated that FEMA or the state needs to improve their messaging, others felt that due to the hyper-local culture of these communities, it is best that messaging be delivered by the local government.

Recommendation

- Develop disaster messaging that is straightforward, consistent, and doesn’t overpromise the assistance these programs can provide.
- Provide impacted jurisdictions with information on the different types of disaster assistance and how they can be utilized in their communities.
- Bring impacted jurisdictions into the information sharing process regarding disaster assistance and utilize them as a conduit to impacted residents.

OBSERVATIONS AND RECOMMENDATIONS

Focus Area: Federal Program Delivery Through State Departments

Observation 7.1: Centralized Disaster Recovery Center and Disaster Assistance Center

Observation

A centralized Disaster Recovery Center (DRC) / Disaster Assistance Center (DAC) allowed for efficient and convenient service delivery to impacted residents.

Category: Potential Best Practice

Analysis

The FEMA DRC and local DAC were co-located in one location with each on separate sides. This served the public well since they had access to all programs (federal, state, and local) in one location. The location was ideal as it was a government office building that was not in use but still contained the needed infrastructure and office supplies. There was a lot of room for parking, RVs, and the insurance village (on-site insurance representatives).

The centralized DRC / DAC opened on January 3, only four days after the fire. The centralized DRC / DAC did require additional resources from state agencies due to its size; however, state leadership worked with agencies to ensure they had the staffing they needed.

Note: While this was effective for this incident, access to a similar space is unlikely in most jurisdictions. The DRC and DAC each must have enough space and separation to maintain individual identities.

Recommendation

- Where possible, locate the DRC and DAC in proximity to one another to enable survivors to engage both easily.

Observation 7.2: State Department Initiative

Observation

State departments were largely forward leaning and provided needed support.

Category: Strength

Analysis

State departments willingly came forward to provide support and fulfill their role in the Marshall Fire response and recovery. Multiple departments reported working long days and weekends to support the DAC, answer phones, and disseminate information. In addition, state leadership provided the staff necessary to accomplish response and recovery tasks.

Recommendation

- Continue to be nimble in disaster response and recovery, including adaptability to conditions on the ground.

Observation 7.3: Transition to Daily Work

Observation

State departments developed processes for transitioning activity from the JFO to the department's daily work.

Category: Strength

Analysis

State departments initially did not have plans and processes for the transition of work from the JFO back to the department. During the recovery, departments developed plans and processes out of need, resulting in successful transitions.

Recommendations

- Codify transition plans in state recovery planning.
- Use the developed processes as a baseline and samples for future disasters.

Observation 7.4: State Department Disaster and Education Training

Observation

Some state departments need more education and training about disaster response and recovery processes.

Category: Area for Improvement

Analysis

While state departments understood they had a role in disaster response and recovery many did not realize how extensive the recovery process would be following the Marshall Fire. In addition, many did not understand their role in the JFO. The roles of the FCO and State Coordinating Officer (SCO) were unclear to them as well.

Agencies that did not typically have a role in disasters found themselves with significant responsibility following the Marshall Fire due to the urban environment and impacts to a large number of homes and businesses. Such agencies had little to no experience in disaster response and recovery and have not always been engaged in planning and decision making. One reason for this may be due to a lack of resources and funding. Some agencies effectively overcame this challenge once they understood their role, but others continued to struggle.

Recommendations

Need to work with other state agencies to learn about their roles, JFOs, FCOs, etc.

- Include state agencies in disaster planning, particularly agencies with a lead role in an ESF and/or Recovery Support Function (RSF).
- Identify and close funding and/or resource gaps that limit an agency's ability to build internal disaster response and recovery capacity for the ESFs and RSFs for which they are responsible.
- Develop a program that includes pre-disaster and just-in-time training for state departments and employees. Training topics could include an agency's role in the state's emergency operations and recovery plans as well as interfacing with the JFO.

Observation 7.5: State Department Responsibilities

Observation

State department support for disasters is unmandated and sometimes unfunded, making it difficult to maintain such support when resources are stretched, particularly when response and/or recovery efforts are lengthy.

Category: Area for Improvement

Analysis

State agencies are tasked as lead or support agencies in response and recovery in the State of Colorado EOP; however, such roles and responsibilities are not defined or required in the state code. Without a policy requiring agencies to ensure ESFs and RSFs are staffed and being addressed, this creates a challenge for DHSEM, the agency responsible. In addition, response and recovery efforts can strain resources when a department must work in disaster response and recovery and maintain its primary mission. State departments must share resources between disaster efforts and their agency's mission, which can make them less willing to support such efforts.

Recommendations

- Develop policy and/or statute for agencies' responsibilities and fund it for agencies with a significant role.
- Seek support from the Office of the Governor and executive branch leadership to ensure agencies provide the level of support laid out in the State of Colorado EOP.

Observation 7.6: State Department Cost Recovery

Observation

State department costs associated with a federally declared disaster are not always recovered through federal funding.

Category: Area for Improvement

Analysis

State department costs associated with work on a disaster are not always documented or reported, resulting in a loss of FEMA reimbursements and minimal visibility by the state of the true cost of the disaster. Reasons stated for not documenting expenses include the agency not understanding the process and/or the process being tedious.

Recommendations

- Ensure state departments understand the importance of tracking disaster-related costs, what those costs are, and how they should be tracked and submitted.
- Develop pre-disaster materials that can be sent to state agencies and shared with state employees working during the disaster, explaining cost tracking and the process for submitting that information.
- Ensure DHSEM employees are available and aggressive in supporting agencies to track reimbursable costs.
- Seek support from the Office of the Governor and executive branch leadership to ensure agencies involved in the response understand that tracking and submitting costs is an expectation.

Observation 7.7: Meeting Efficiency

Observation

Some participants felt many meetings were inefficient.

Category: Area for Improvement

Analysis

State and local representatives reported that meetings could be excessive. They felt they sometimes attended meetings that were not relevant to their role or responsibility. The availability of remote meetings, while beneficial for ease of attendance, also allowed for back-to-back meetings to be scheduled, which resulted in more time spent in meetings.

Recommendation

- Evaluate meetings held during a disaster to ensure that they are not duplicative or overly burdensome on impacted jurisdictions.

Observation 7.8: IA Program Delivery

Observation

The state lacks a clear process to support and coordinate IA Program delivery.

Category: Area for Improvement

Analysis

Local, state, and federal officials all noted gaps in the state process for IA program delivery. Local government representatives shared that they were unclear about the state process for IA, including a point of contact and information needs. Federal officials noted that the state currently lacked an IA Program Officer and that there has been turnover in the position in the past. State officials noted that the process and eligibility requirements for IA are not as clear as those for PA and that the move by FEMA to implement changes to this program during the Marshall Fire recovery created additional work and uncertainty. Others noted the planning and processes are not in place to be successful for IA program implementation in the context of a non-expedited declaration.

Recommendations

- Establish the IA Program Officer position for the State of Colorado.
- Support the IA program with planning and processes so it can be implemented when needed.

Observation 7.9: Local Disaster Planning

Observation

State and local governments feel there is a lack of pre-disaster planning between the state and local jurisdictions, particularly in recovery.

Category: Area for Improvement

Analysis

The state has a strong disaster response preparedness program with multiple training and exercise opportunities and various state committees; however, recovery planning efforts have been limited between the state and local jurisdictions.

Local governments felt they were unprepared for a disaster of the size and scope of the Marshall Fire and needed guidance in this area, particularly in cost recovery. The state estimates that approximately \$20 million per year in recovery funds are left on the table due to this lack of planning and the inability of local governments to capture all costs appropriately. They also indicated a lack of funding and resources prevents them from conducting sufficient pre-disaster planning and education efforts with local jurisdictions. The state often provides expertise to local jurisdictions during a declared disaster; however, the state officials who are well versed in recovery are funded from prior declarations and cannot focus their efforts on pre-disaster planning and education.

In addition, the state's history of receiving expedited declarations has created an expectation of the same in the future and a lack of understanding of the traditional process for requesting a declaration.

Recommendations

- Develop a "Roadmap to Recovery" for local jurisdictions to reference in pre-disaster planning and to guide them through response and recovery.
- Conduct training on recovery operations for local jurisdictions. Encourage local jurisdictions to participate in online FEMA independent study courses focused on recovery.
- Coordinate with FEMA Region VIII to conduct a recovery workshop for local jurisdictions.

Observation 7.10: Disaster Case Management

Observation

There is widespread misunderstanding about disaster case management (DCM) and its role in disaster recovery.

Category: Area for Improvement

Analysis

Several respondents voiced frustration with the existing process and location of DCM following the incident. However, DCM is a FEMA funded program that, when granted, is managed by the state. The program involves a partnership between a case manager and a disaster survivor to develop and carry out the survivor's long-term recovery plan. The services, provided through a grant from FEMA, are available to anyone impacted by the incident. This differs from referral programs, which can be funded and managed by anyone, and which connect survivors with recovery services.

To receive DCM funding, a community must prove there is a need that cannot be met through existing resources. Boulder County applied for and was denied DCM program funding due to a lack of demonstrated need. Instead, the Community Foundation Boulder County worked to establish the Navigating Disaster for Boulder County program, which can be accessed online through a platform titled Recovery Navigator. While similar to DCM, this is not a FEMA program and does not provide the same level of services.

Colorado has never been granted DCM for any declared incident. Therefore, jurisdictions lack experience in its application and implementation. Additionally, the state currently lacks the capacity and staffing to support such a program if it were to be granted following future disasters.

Recommendations

- Develop template materials that can be provided to local governments pre-disaster and post-disaster to support local implementation of the DCM program.
- Develop state capacity and personnel to support DCM programming through a state IA Program Officer.
- Incorporate talking points regarding the DCM for state-led meetings and conferences, to provide education about the program.

OBSERVATIONS AND RECOMMENDATIONS

Focus Area: Other

Observation 8.1: Response and Recovery Interface

Observation

The state's response and recovery teams would benefit from more collaboration.

Category: Area for Improvement

Analysis

The state's response and recovery teams have good relationships with one another, but still mostly operate independently. The Marshall Fire demonstrated the need for more cohesiveness between the teams during all phases of a disaster. Recovery planning typically begins at the start of the response and response data and information informs this planning. Likewise, recovery activity can feed into future preparedness efforts. For the Marshall Fire, the recovery team became engaged later in the response and was not integrated with the response team, which limited them from seeing the full operating picture.

Recommendations

- Involve DHSEM Recovery Section representatives in SEOC operations at the outset of any disaster.
- Evaluate existing communication and coordination efforts between the SEOC and Recovery Section to identify specific areas for improvement.
- Hold a workshop or similar process to develop processes and procedures to address the identified areas of improvement and institutionalize these in planning, policies, and procedures.

Observation 8.2: NGO Integration

Observation

The state has a strong VOAD system. Regional VOAD organizations were key to the Marshall Fire response and recovery; however, the relationship between the COVOAD and the DHSEM is strained.

Category: Strength and Area for Improvement

Analysis

Colorado has a strong state VOAD and several well-developed regional VOADs, which were key to coordinating NGOs during the Marshall Fire. The daily coordination call prevented duplication of efforts and increased situational awareness among organizations. In addition, the VOAD provides coordination of NGO service delivery, donations, and a volunteer long-term recovery group. These services were critical to the recovery needs of those impacted and the community as a whole.

Unfortunately, the relationship between COVOAD and DHSEM has become strained as VOAD representatives perceive a lack of support from the State. This is due, in part, because of hesitancy by the State to continue to fund Disaster Agency Response Technology (DART) software due to its data sharing agreement.

The emergency management community and the residents and visitors they serve would benefit from a positive, collaborative relationship between the two entities.

Recommendation

- Revisit and reestablish the Memorandum of Understanding (MOU) between the COVOAD, regional VOADs, and DHSEM to meet the needs of all entities while supporting response and recovery efforts.

Observation 8.3: Continuous Improvement Program

Observation

The State lacks an established continuous improvement program (CIP).

Category: Area for Improvement

Analysis

Several State and federal officials noted that the existing AAR/IP process is not conducted in a way to support continuous improvement and does not inform strategic goals. For example, the current effort to conduct a State-led AAR/IP for the Marshall Fire is being conducted approximately 1.5 years following the incident, which dampens the effectiveness of the project as participants in the effort have left office while those who remain may not remember valuable details as precisely. While there are no established national guidelines, FEMA recommends that after-action reviews be conducted as soon as possible following an incident to obtain the most useful information to support a robust CIP.

Organizations benefit from a standardized continuous improvement process since they will likely encounter repeated or similar operational hurdles that limit their operational effectiveness if they go unaddressed. A continuous improvement process establishes protocols to help ensure organizations can identify and act on strengths, areas for improvement, and potential best practices.

Recommendations

- Utilizing FEMA's 2022 National Continuous Improvement Guidance, establish governing policies for a DHSEM-led CIP, including program priorities, strategic goals, timelines, organizational structure, and other elements. Institutionalize the program by integrating these policies in appropriate documents (usually accomplished through incorporation in the jurisdiction's EOP).
- Develop a process to automatically conduct AARs following an incident with predetermined timelines for AAR development and pre-identified contract support to conduct such AARs.

CONCLUSION

The project team has presented findings, observations, analysis, and recommendations about the State of Colorado's response to the Marshall Fire, gained through a series of interviews and document review. The input provided by the participants in the AAR process helped to provide a comprehensive picture of strengths, best practices, and areas for improvement that can be used to build toward greater resiliency against future disasters, including fires.

As Colorado faces a changing environment and ongoing growth, the likelihood of fires and other disasters continues to increase. While the response to and recovery from the Marshall Fire was successful in many ways, it highlighted gaps in legislation, planning, personnel, training, and program delivery. The State of Colorado, including DHSEM, has already made significant strides in overcoming several of these shortfalls.

DHSEM and its operational partners are to be commended for their level of effort and accomplishments during an unprecedented event. The commitment to this project demonstrates their desire to learn and grow from this experience so their mission "to lead and support Colorado's effort to prevent, protect, mitigate, respond to, and recover from all hazards events" can continue to be upheld.

APPENDIX A – GLOSSARY AND ACRONYMS

Glossary

ADDITIONAL LIVING EXPENSES (ALE): Coverage under a homeowner, condominium owners, or renters' insurance policy that covers the additional costs of living incurred by a policyholder should they be temporarily displaced from their place of residence.

AFTER-ACTION REPORT (AAR): A report covering response actions, application of the Incident Command System, modifications to plans and procedures, training needs, and recovery activities.

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE): A department of the Colorado state government that focuses on broad-based health and environmental protection programs and activities.

COMMUNITY LIFELINES: FEMA's Community Lifelines include seven categories that demonstrate essential areas of response and coordination during a disaster. The lifeline categories are food, water and sheltering, energy, health and medical, public safety and security, hazardous materials, communications, and transportation.

COORDINATION: The process of systematically analyzing a situation, developing relevant information, and informing the appropriate command authority of viable alternatives for the selection of the most effective combination of available resources to meet specific objectives. The coordination process does not involve dispatch actions. However, personnel responsible for coordination may perform command or dispatch functions within the limits established by specific agency delegations, procedures, legal authority, etc.

CRISIS TRACK: Software used to support the damage assessment process post-disaster.

COLORADO DIVISION OF HOMELAND SECURITY AND EMERGENCY MANAGEMENT (DHSEM): A division of the Department of Public Safety in Colorado state government that focuses on building a comprehensive emergency management program that supports local and state agencies in the five phases of all-hazards emergency management.

DISASTER: A situation that creates an actual or imminent serious threat to the health and safety of persons or a situation that has resulted or is likely to result in catastrophic loss to property or the environment and for which traditional sources of relief and assistance within the affected area are unable to repair or prevent the injury or loss. A disaster usually exhausts local resources and requires outside help.

DISASTER ASSISTANCE CENTER: A place where residents can go to learn about county assistance, insurance, health care, volunteering, donations, emotional support, and evacuee provisions.

DISASTER CASE MANAGEMENT (PROGRAM): FEMA's Disaster Case Management Program (DCMP) provides for disaster survivors in areas in which a Presidential disaster declaration has been made that includes Individual Assistance. Disaster Case Management provides assistance that lasts no more than 24 months from the disaster declaration. DCMP allows states, U.S. territories, and tribes to provide DCM services following a major disaster.

DISASTER RECOVERY CENTER: An accessible facility where applicants may visit for information about FEMA or other disaster assistance programs, or questions related to specific cases. Services may include guidance regarding disaster recovery assistance and programs for survivors, clarification of any written correspondence from FEMA, housing assistance and rental resource information, problem resolution, the status of applications being processed by FEMA, and small business assistance.

DIVISION OF INSURANCE (DOI): A division of the Department of Regulatory Agencies in Colorado state government that regulates the insurance industry in Colorado, helping consumers by answering their questions, investigating their complaints, and helping them to understand their insurance.

DEPARTMENT OF LOCAL AFFAIRS (DOLA): A department in Colorado state government that serves as the primary interface between state and local communities, providing financial support to local communities and professional and technical services to community leaders in the areas of governance, housing, and property tax administration.

DEPARTMENT OF REGULATORY AGENCIES (DORA): A department in Colorado state government that serves as the state's umbrella regulatory agency, charged with managing licensing and registration for multiple professions and businesses, implementing balanced regulation for multiple industries, and protecting consumers.

EMERGENCY MANAGEMENT ASSISTANCE COMPACT (EMAC): EMAC offers assistance during governor-declared states of emergency or disaster through a responsive, straightforward system that allows states to send personnel, equipment, and commodities to assist with response and recovery efforts in other states.

EMERGENCY OPERATIONS CENTER (EOC): A central command and control facility responsible for carrying out the principles of emergency preparedness and emergency management or disaster management functions at a strategic level during an emergency and ensuring the continuity of operations of a company, political subdivision, or other organization.

EMERGENCY OPERATIONS PLAN (EOP): The EOP provides the structure and processes that the organization utilizes to respond to and initially recover from an incident.

EMERGENCY SUPPORT FUNCTION (ESF): Emergency Support Functions is the grouping of governmental and certain private sector capabilities into an organizational structure to provide support, resources, program implementation, and services that are most likely needed to save lives, protect property and the environment, restore essential services and critical infrastructure, and help victims and communities return to normal following domestic incidents.

FEDERAL COORDINATING OFFICER: The person appointed by the President to coordinate federal assistance in the designated area following the declaration of a major disaster or emergency under the Stafford Act.

FIRE MANAGEMENT ASSISTANCE GRANT: Available as a cost share program (typically 75% federal and 25% local) to states, local and tribal governments, for the mitigation, management, and control of fires on publicly or privately owned forests or grasslands, which threaten such destruction as would constitute a major disaster.

FUNCTION: In ICS, function refers to the five major activities in the ICS: Command, Operations, Planning and Intelligence, Logistics, and Finance/Administration. At the EOC, the term "Management" is used in place of "Command." The term "function" is also used when describing the activity involved.

HAZARD MITIGATION GRANT PROGRAM: FEMA's hazard mitigation assistance provides funding for eligible mitigation measures that reduce disaster losses. "Hazard mitigation" is any sustainable action that reduces or eliminates long-term risk to people and property from future disasters.

IMPROVEMENT PLAN (IP): The IP details corrective actions to address any gaps noted in the AAR.

INCIDENT: An occurrence or event, either human-caused or by natural phenomena, which requires action by emergency response personnel to prevent or minimize loss of life or damage to property and/or natural resources.

INCIDENT COMMAND SYSTEM (ICS): The nationally used, standardized on-scene emergency management concept

specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, with the responsibility for the management of resources to effectively accomplish stated objectives pertinent to an incident.

INCIDENT COMMANDER (IC): The individual responsible for on-scene activities, including developing incident objectives and ordering and releasing resources. The IC has overall authority and responsibility for conducting incident operations.

INCIDENT MANAGEMENT: The broad spectrum of activities and organizations providing operations, coordination, and support applied at all levels of government, using both governmental and nongovernmental resources to plan for, respond to, and recover from an incident, regardless of cause, size, or complexity.

INDIVIDUAL ASSISTANCE (IA): FEMA provides IA directly to eligible individuals and families who have sustained losses due to disasters. Assistance may include grants to help pay for temporary housing to include rental and lodging expenses, emergency home repairs, uninsured and underinsured personal property losses, and medical, dental, and funeral expenses caused by the disaster, along with other serious disaster-related expenses.

JOINT FIELD OFFICE (JFO): The JFO is a temporary Federal facility established locally where Federal, State, Tribal, and local executives with responsibility for incident management coordinate, oversee, and direct prevention, preparedness, response, and recovery activities.

JOINT INFORMATION CENTER (JIC): The JIC is a central location that facilitates the operation of the Joint Information System. It is the central point of contact for all news media. Public information Officers from all participating agencies should co-locate at the JIC.

JURISDICTION: Jurisdictions are usually incorporated locations, recognized by the U.S. Census Bureau. Jurisdictions include but are not limited to, cities, towns, townships, boroughs, villages, counties, and parishes.

LOCAL GOVERNMENT: Public entities responsible for the security and welfare of a designated area as established by law. A county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments, regional or interstate government entity, agency or instrumentality of a local government, or a tribe or authorized tribal authority.

NON-GOVERNMENTAL ORGANIZATION (NGO): A group that functions independently of any government. It is usually non-profit. NGOs, sometimes called civil society organizations, are established on community, national, and international levels to serve a social or political goal such as a humanitarian cause or the protection of the environment.

NONPROFIT ORGANIZATION: A tax-exempt organization that serves the public interest. In general, the purpose of this type of organization must be charitable, educational, scientific, religious, or literary. It does not declare a profit and utilizes all revenue available after normal operating expenses in service to the public interest. A nonprofit organization is a 501(c)(3) or a 501(c)(4) designation.

OVERHAUL: Overhaul ensures that a fire is completely extinguished by finding and exposing any smoldering or hidden pockets of fire in an area that has been burned.

PREPAREDNESS: Actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effect of, respond to, and recover from threats and hazards.

PUBLIC ASSISTANCE (PA): PA is a reimbursement program that provides federal funding to help communities respond to and recover from disasters. FEMA provides a cost-share reimbursement (typically 75% federal and 25% local) to state, tribal, and local governments and certain types of private nonprofit organizations for the cost of disaster-related debris removal, emergency protective measures to protect life and property, and permanent repair work to damaged or destroyed infrastructure.

PUBLIC INFORMATION OFFICER (PIO): A member of the ICS Command Staff responsible for interfacing with the public and media and/or with other agencies with incident-related information needs.

RECOVERY: The capabilities necessary to assist communities affected by an incident to recover effectively.

RECOVERY SUPPORT FUNCTION (RSF): RSFs involve partners in the local, State, and Tribal governments and private and nonprofit sectors not typically involved in emergency support functions but critically needed in disaster recovery. Each RSF has a designated coordinating agency along with primary agencies and supporting organizations with programs relevant to the functional area.

RESOURCE: Personnel, equipment, teams, supplies, and facilities available for assignment to incident operations and for which status is maintained. Resources are described by kind and type and may be used in operational support or supervisory capacities at an incident or an EOC.

RESPONSE: The capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred.

STATE COORDINATING OFFICER: The individual appointed by the Governor to coordinate State disaster assistance efforts with those of the Federal Government.

STATE EMERGENCY OPERATIONS CENTER (SEOC): The SEOC is where state, local, and federal agencies coordinate the response to a disaster, emergency, or terrorist event within the state.

SUBJECT MATTER EXPERT (SME): A SME provides the knowledge and expertise in a specific subject, business area, or technical area for a project/program.

VOLUNTARY ORGANIZATIONS ACTIVE IN DISASTER (VOAD): VOAD means one or a coalition of (usually nonprofit) second responder organizations in the United States. These groups voluntarily help survivors after a disaster. VOAD members cannot activate, direct, or supervise one another without a special agreement (such as an MOU).

Acronyms

AAR: After-Action Report

AAR/IP: After-Action Report / Improvement Plan

ALE: Additional Living Expenses

BCHHS: Boulder County Housing and Human Services

BCPH: Boulder County Public Health

CDA: Colorado Department of Agriculture

CDBG-DR: Community Development Block Grant for Disaster Recovery

CDHS: Colorado Department of Human Services

CDLE: Colorado Department of Labor and Employment

CDPHE: Colorado Department of Public Health and Environment

CDPS: Colorado Department of Public Safety

CIP: Continuous Improvement Program

COVOAD: Colorado Voluntary Organizations Active in Disaster

CSU: Colorado State University

DAC: Disaster Assistance Center

DART: Disaster Agency Response Technology

DCM: Disaster Case Management

DHSEM: Division of Homeland Security and Emergency Management

DOI: Division of Insurance

DOLA: Department of Local Affairs

DORA: Department of Regulatory Agencies

DRC: Disaster Recovery Center

D-SNAP: Disaster Supplemental Nutrition Assistance Program

DUA: Disaster Unemployment Assistance

EEl: Essential Elements of Information

EMAC: Emergency Management Assistance Compact

EOC: Emergency Operations Center

EOP: Emergency Operations Plan

ESF: Emergency Support Function

FCO: Federal Coordinating Officer

FEMA: Federal Emergency Management Agency

FMAG: Fire Management Assistance Grant

FSA: Farm Service Agency

HMGP: Hazard Mitigation Grant Program

IA: Individual Assistance

IC: Incident Commander

ICS: Incident Command System

IP: Improvement Plan

IT: Information Technology

JFO: Joint Field Office

JIC: Joint Information Center

MOU: Memorandum of Understanding

NGO: Nongovernmental Organization

NIMS: National Incident Management System

PA: Public Assistance

PIO: Public Information Officer

PPDR: Private Property Debris Removal

RFI: Request for Information

RFP: Request for Proposals

RPA: Request for Public Assistance

RSF: Recovery Support Function

SBA: Small Business Administration

SCO: State Coordinating Officer

SEOC: State Emergency Operations Center

SLDHTF: State-Led Disaster Housing Task Force

USACE: United States Army Corp of Engineers

USDA: United States Department of Agriculture

VOAD: Voluntary Organizations Active in Disaster

APPENDIX B – EVENT TIMELINE

12/30/2021

11:05 a.m.

Fire is reported to 911

Source: Boulder County Marshall Fire Operational After-Action Report (AAR)

<https://assets.bouldercounty.gov/wp-content/uploads/2022/06/marshall-fire-after-action-report.pdf>

11:15 a.m.

**Crews are redirected from nearby Middle Fork Fire to begin battling the blaze
First responders begin evacuations immediately**

Source: Boulder County Marshall Fire AAR

11:30 a.m.

Boulder County Emergency Operations Center (EOC) mobilizes

Source: Boulder County Marshall Fire AAR

4:04 p.m.

Boulder County public information call center opens

Source: Boulder County Office of Emergency Management Public Notices Archive 2021

<https://www.boulderoem.com/2021/>

5:40 p.m.

Community Foundation Boulder County establishes the Boulder County Wildfire Fund

Source: Boulder County Office of Emergency Management Public Notices Archive 2021

6:30 p.m.

Fire behavior slows considerably

Source: Boulder County Marshall Fire AAR

Fire Management Assistance Grant (FMAG) declaration granted (FM-5423-CO)

Source: <https://www.fema.gov/disaster/declarations>

Governor Polis declares state of emergency due to Boulder County grass fires

Source: DHSEM DR4634 Press Releases webpage

<https://mars.colorado.gov/dr4634-marshall-fire-and-straight-line-winds/dr4634-press-releases>

City of Louisville issues boil water advisory due to fires

Source: DHSEM DR4634 Press Releases webpage

12/31/2021

Fire size is estimated at 6,000 acres. Snowfall of 4-8" effectively stops all forward progress

Source: Boulder County Marshall Fire AAR

Major disaster declaration granted (DR-4634-CO)

Source: <https://www.fema.gov/disaster/declarations>

Town of Superior issues boil water advisory due to fires

Source: DHSEM DR4634 Press Releases webpage

Small Business Administration (SBA) disaster declaration for Colorado

Source: DHSEM DR4634 Press Releases webpage

FEMA approves Public Assistance (PA) program and Individual Assistance (IA) programs for Boulder County)

Source: <https://www.fema.gov/disaster/declarations>

Re-entry begins for some residents

Source: Boulder County Office of Emergency Management Public Notices Archive 2021

1/1/2022

Boulder County Sheriff releases a preliminary list of structures damaged in the Marshall Fire

Source: Boulder County Office of Emergency Management Public Notices Archive 2022
<https://www.boulderoem.com/2022/>

1/3/2022

Disaster Assistance Center (DAC) opens for those impacted by Marshall Fire

Source: Boulder County Office of Emergency Management Public Notices Archive 2022
Source: <https://www.fema.gov/disaster/declarations>

Colorado Department of Public Health and Environment (CDPHE) notifies of potential | health risks associated with home fire debris

Source: DHSEM DR4634 Press Releases webpage

FEMA approves Disaster Unemployment Assistance (DUA)

Source: DHSEM DR4634 Press Releases webpage

1/5/2022

The City of Louisville lifts the evacuation order for all Marshall Fire areas

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

First missing person fatality located in Marshall Fire

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

1/6/2022

FEMA gives notice to the public of its intent to reimburse eligible applicants for eligible costs applicable to PA, IA, and Hazard Mitigation Grant Programs (HMGP)

Source: DHSEM DR4634 Press Releases webpage

CDPHE rescinds boil water advisories for the Town of Superior and the City of Louisville

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

Virtual community meeting held for all Marshall fire-impacted residents

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

Boulder County releases updated list of structures damaged and destroyed in the Marshall Fire

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

SBA opens Business Recovery Center in Lafayette to help impacted businesses

Source: DHSEM DR4634 Press Releases webpage

1/7/2022

Boulder County partners with Boulder Area Rental Housing Association to share housing resources after Marshall fire

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

1/8/2022

President Biden and First Lady visit Marshall Fire impact area

Source: DHSEM DR4634 Press Releases webpage

1/9/2022

Vigil of Hope and Healing held for the families of wildfire impacted pets

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

1/11/2022

Colorado Department of Agriculture (CDA), United States Department of Agriculture (USDA) 's Farm Service Agency (FSA), and Colorado State University (CSU) Extension host a digital town hall for agriculture affected by Marshall Fire

Source: DHSEM DR4634 Press Releases webpage

Right of Entry forms made available for properties destroyed by the Marshall Fire

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

SBA begins offering disaster assistance

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

1/14/2022

Right of way debris removal begins

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

1/17/2022

Boulder County EOC demobilizes

Source: Boulder County Marshall Fire AAR

1/19/2022

Virtual community meeting for all unincorporated Boulder County Marshall Fire impacted residents

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

1/20/2022

Colorado Department of Human Services (CDHS) announces the activation of the Disaster Supplemental Nutrition Assistance Program (D-SNAP) in partnership with Boulder County Housing and Human Services (BCHHS) to support survivors

Source: DHSEM DR4634 Press Releases webpage

First PA applicant briefing

Source: DHSEM Public Assistance for DR4634 website

<https://mars.colorado.gov/state-disasters/dr4634-marshall-fire-and-straight-line-winds/public-assistance-for-dr4634>

Virtual community meeting for all Marshall Fire impacted residents

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

1/21/2022

Second PA applicant briefing

Source: DHSEM Public Assistance for DR4634 website

1/22/2022

In-person DAC closes

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

1/26/2022

Boulder County begins Phase 2b of curbside debris removal for Marshall Fire-impacted residents

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

1/27/2022

Final PA applicant briefing

Source: DHSEM Public Assistance for DR4634 website

1/28/2022

Department of Local Affairs (DOLA) announces waiver of all fees charged in support of rebuilding efforts following the wildfire

Source: DHSEM DR4634 Press Releases webpage

1/30/2022

Deadline for the Request for Public Assistance (RPA) for DR-4634

Source: DHSEM Public Assistance for DR4634 website

2/1/2022

FEMA announces assistance for renters

Source: DHSEM DR4634 Press Releases webpage

D-SNAP application deadline

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

2/2/2022

DUA application deadline

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

2/3/2022

Boulder County submits debris removal application for funding assistance

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

2/8/2022

American Bar Association Young Lawyers Division announces hotline for free legal help for survivors

Source: DHSEM DR4634 Press Releases webpage

2/9/2022

Community meeting held on rebuilding for unincorporated Boulder County Marshall fire impacted residents

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

2/10/2022

County Commissioners select the recommended contractor for the Marshall Fire debris cleanup program

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

Private Property Debris Removal (PPDR) program funding gets FEMA approval

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

3/2/2022

Application deadline for FEMA disaster assistance and SBA low-interest disaster loans

Source: DHSEM DR4634 Press Releases webpage

3/22/2022

County Commissioners approve the intergovernmental agreement and contract for the PPDR cleanup program

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

3/28/2022

Judge dismisses lawsuit related to Marshall Fire PPDR cleanup program

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

3/31/2022

Deadline to apply for current Marshall Fire financial assistance categories through Community Foundation Boulder County

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

4/11/2022

Boulder County Public Health (BCPH) announces real-time air quality data and alerts for areas affected by Marshall Fire

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

4/13/2022

BCPH announces that testing shows soil safe in Marshall Fire burn areas

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

4/15/2022

Boulder County launches Rebuilding Better website for Marshall Fire-impacted residents

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

4/19/2022

The Biden-Harris Administration announces an increase in loan eligibility through SBA for home repair and replacement

Source: DHSEM DR4634 Press Releases webpage

5/29/2022

Judge dismisses second debris removal lawsuit

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

6/10/2022

Recovery Navigation Program begins as a joint funding partnership between Boulder County and the Community Foundation of Boulder County

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

8/4/2022

County Commissioners approve accessory dwelling amendment for Marshall Fire recovery

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

8/19/2022

Boulder County launches new Navigating Disaster for Boulder County website to help those impacted by and recovering from disaster

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

8/24/2022

Coordinated Debris Removal Program completes ash and debris removal work from Marshall Fire

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

10/7/2022

Debris Insurance Reconciliation website launches for those who participated in the PPDR

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

11/29/2022

FEMA approves another \$1.5 million in Public Assistance funding

Source: <https://www.fema.gov/press-release/20221129/fema-awards-another-15-million-marshall-fire-recovery>

1/11/2023

Community Meeting held on rebuilding in unincorporated Boulder County after the Marshall Fire

Source: Boulder County Office of Emergency Management Public Notices Archive 2022

3/15/2023

Dedicated Marshall Fire air quality monitoring and alter system ends

Source: Boulder County Office of Emergency Management Public Notices Archive 2023

<https://www.boulderoem.com/202/3>

5/4/2023

Boulder County Sheriff's Office announces improvements made to county-wide alert and warning systems since the Marshall Fire

Source: Boulder County Office of Emergency Management Public Notices Archive 2023

6/8/2023

Boulder County officials released the cause of the fire.

Source: Boulder County Press Release

APPENDIX C – INTERVIEW QUESTIONS

General Background

- Your Position(s) / Roles and Responsibilities - then and now
- Notification to work on the incident - How, Who, When? When did you begin work on the incident? When did your involvement end?
- Was the incident's organizational structure, areas of authority and your areas of responsibilities clearly communicated and understood?
- Who were your partners (internal and external) that you coordinated and worked with during the response?
- Have you been involved with other AARs associated with the Marshall Fire?

General Leading Questions

- How did the incident unfold once you got involved?
- Did you have the information (amount and type) you felt you needed to support effective decision-making?
- Do you believe that the responsibilities tasked to you and/or others (by statute, plan, or directive) were appropriate? Why or why not?
- Did you and/or others have the authority you felt was needed to carry out assigned responsibilities?

Focus Areas

Context of an expedited presidential major declaration process

- In what ways did the expedited declaration process contribute to and/or hinder response and recovery efforts?
- Are there plans, policies, and procedures in place to support an efficient disaster declaration and possible associated program funding requests during a traditional declaration process?
- Do/did all the local, state, and federal partners understand the processes and impacts of an expedited declaration?
- Were your projects impacted by the changes to the small project threshold? If so, how?

Damage assessment

- Who led and who supported this effort?
- Were damage assessment plans, policies, and procedures in place? Were they followed?
- How were damage assessment efforts coordinated?
- Were there enough resources assigned to meet damage assessment goals?
- Did damage assessment documentation / information get reported to the appropriate areas in a timely manner?
- Was this information accurate and detailed enough to support operations and decision-making?
- Was this process affected by the expedited declaration? (Negative or positive)

Debris management

- Who led and who supported this effort?
- How were debris management efforts coordinated? What resources were assigned?
- Were debris management plans, policies, and procedures in place at all levels? Were they followed?

- Was the type and number of resources assigned sufficient to accomplish debris removal goals?
- Did policies achieve desired outcomes? (e.g., if there was a debris reduction policy, were goals met?)
- How would debris management be impacted if state resources were unavailable in an incident without a presidential declaration (i.e., grant funded state workers unable to assist without a declaration)?

Human health hazard monitoring for air, water, and soil quality

- Who led and who supported this effort?
- Were there state statutes or policies that impacted clean-up? What would you change in this area?
- Can you describe what the working relationship between local and state health dept resources was like?
- Were problems identified and resolved quickly? What could have helped this process be more efficient?
- Were public health orders enacted and if so, how were these implemented in the field?
- Are there any unresolved issues from this incident that need to be addressed?

FEMA/Joint Field Office (JFO) connection to affected governments

- Was communication and coordination between the JFO and local government effective?
- Did Situation Reports contain the right information?
- Was the frequency of exchange from/to FEMA/State/local appropriate for the situation?

Disaster housing recovery process and coordination

- Who led and who supported this effort?
- Were appropriate programs, policies, procedures, and positions in place to support the disaster housing recovery process? (Local and State)
- Describe coordination efforts between FEMA/State/and local jurisdictions. What went well and what could have been improved?

Federal program delivery among multiple Colorado state departments

- Were state departments aware of their responsibilities (assigned via statute, plan, or directive) regarding response/recovery?
 - o How did that transition go?
 - o Were normal services affected?
- What platforms exist for internal communication and coordination and how were these used?
- Were local recovery programs and organizations leveraged appropriately?
- Was there any duplication of effort? Do you have recommendations to align processes or otherwise create efficiency?

General Closing Questions

- Would you recommend any policy changes (local/state/federal) related to what we discussed today? Who would be responsible?
- Were there any innovative solutions to problems achieved in real-time or discussed later that we should capture to improve future response and recovery efforts?
- What do you feel is the biggest area(s) for improvement that needs to be addressed before the next disaster?

APPENDIX D – DATA CALL AND ADDITIONAL REFERENCES

The following resources were used in the evaluation and analysis of this report:

- Boulder County. (2022). Marshall Fire Operational AAR.
- Boulder County. (2023). EOP Transition Plan.
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- FEMA. (2022). Joint Integrated Strategic Plan: FEMA-4634-DR-CO.
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- Marshall Fire Recovery and Resiliency Working Group. (2022). Wave 1 Technical Report.
- State of Colorado. (n.d.). Colorado Revised Statutes Online. Available at <https://leg.colorado.gov/agencies/office-legislative-legal-services/colorado-revised-statutes>
- United States Army Corp of Engineers. (2022). 2022 Boulder County Marshall Fire USACE Debris Removal Mission Close Out Report.
- Unknown Author. (2023). Disaster Housing AAR: DR 4634 CO Marshall Fire.