

BUTTE COUNTY  
CAMP FIRE RESPONSE  
COUNTY-WIDE AFTER ACTION REPORT

August 2020





# Acknowledgements and Thanks

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## Thanks

The response to the Camp Fire required support from multiple County, City, State, and Federal responders; hundreds of volunteers; and countless residents providing a helping hand to neighbors and community members. Butte County would like to take this opportunity to sincerely thank each and every individual who contributed their time and resources to assist with the response to the Camp Fire as well as the continued recovery efforts. Words cannot describe the selflessness, dedication, and sheer determination of the staff, volunteers, and community members. You have inspired us with your heroism and sacrifice. To all the other agencies, organizations, and jurisdictions who reached out immediately and offered staff, supplies, and advice, you have our sincerest gratitude. We hope that the lessons learned and the best practices highlighted in this report can serve as a guide, passing our experiences on to the next in order to enhance response and recovery capabilities everywhere.

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## Dedication

This document is dedicated to all those who experienced loss due to the Camp Fire. The loss of life, loved ones, property, and connection to home is a heavy weight to bear. Our community will continue to feel loss for as long as we are here to remember. This document is meant to ensure we never forget. More importantly, it is meant to celebrate our resilient spirit, help guide our steps as we rebuild stronger, and promote preparedness through the transparent sharing of our experiences and the many lessons we learned.

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## Contributors

The authors of this After Action Report (AAR) would also like to thank those who helped to put this document together. The appendices of this document contain a list of individuals who helped author the document, review drafts, participate in interviews, provide data, and participate in the Camp Fire Hot Washes. In addition, countless individuals provided their thoughtful feedback through a general survey distributed to Butte County employees and partner agencies.

In particular, the Project Oversight Team for this effort deserves our appreciation for their leadership and review in the development of this document, especially while still coping with the impacts of the event.



This AAR was written and developed by Constant Associates, Inc., which is a third-party, private sector emergency management and public health preparedness consulting firm contracted through donated emergency response funds (via Direct Relief) from the Camp Fire to compile this AAR.



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# Executive Summary

## Losing the Battle, Winning the War

### We Are All In

The tragedy experienced due to the Camp Fire cannot be understated. It will remain a marker in the County's history for years to come. The Camp Fire remains the deadliest and most destructive fire in California history. It was a devastating event that burned over 150,000 acres, destroyed nearly 19,000 structures, and fatally claimed 85 lives. While the fire took so much from so many, one thing persisted, the undying commitment of the community to help one another survive the unthinkable. This selflessness extended from neighbors helping evacuate one another to employees and volunteers working countless hours to help the friends, family, and constituents of Butte County. Throughout Butte County, the region, the State of California, and beyond, responders performed heroically with a singular focus – to support the survivors.

### Partner Thoughts

"We were creative, because we had to be. I would tell staff, when you hit a wall climb it!"

~ Shari McCracken  
Chief Administrative Officer

This report is written with the acknowledgement that, though not every battle was won, Butte County staff, its partner organizations, and all other involved stakeholders fought relentlessly to win the war. This report will document both lessons learned from this tragic event as well as best practices in hopes that the County and other jurisdictions may take heed, apply these concepts, and enhance capacity for future responses. While this report cannot change the outcomes of the Camp Fire, by sharing what was learned, it can potentially save lives, protect property, and mitigate the impacts of future disasters.

With that in mind, this AAR highlights specific best practices that the County feels could benefit other jurisdictions from the perspective of the responder. The report organizes all findings into specific themes generated from data collected on the response to the Camp Fire. Each theme addresses both strengths and areas for improvement identified by County staff and response partners. Specific recommendations for improvement are listed for each theme and are summarized in a separate document, the Corrective Action Plan (CAP).

### The After Action Process

The production of this AAR was made possible through Camp Fire recovery funds generously donated by Direct Relief. Funds were utilized to contract Constant Associates, Inc. to develop this report as a third-party emergency management and public health preparedness consulting firm. Constant Associates provided a team of experts to collect data through documentation reviews, stakeholder interviews, surveys, and facilitated group discussions.



After a thorough analysis of the data collected, findings and recommendations for improvement were outlined. This report focuses on a defined timeframe and aims to capture the best practices and lessons learned that were demonstrated in the Camp Fire response efforts beginning November 8, 2018 and ending March 1, 2019. Best practices are provided throughout the document as to share procedures, tactics, and solutions utilized during and following the Camp Fire so that other jurisdictions can enhance their preparedness and response capability.

A separate Camp Fire Recovery After Action Report is under development, and will further outline recovery activities such as debris management coordination. As such, analysis of recovery activities has not been included within this document, with the exception of re-entry and repopulation, local assistance center activation, and other activities which overlapped with the response period and led to the transition into recovery operations.

Recommendations for improvement have been captured and are listed within the Analysis of Findings section of this report. Recommendations have been developed to support continued and future action the County is making to enhance its preparedness, response, recovery, and mitigation capabilities. The most notable significant strengths and areas for improvement are highlighted below.

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### Significant Strengths

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- Creative problem-solving was implemented to successfully address the unprecedented demands of the Camp Fire.
- Butte County's culture of collaboration, staff familiarity, and sense of dedicated responsibility served as a driving force throughout the Camp Fire response and recovery effort.
- Butte County's nightly press conferences demonstrated transparency and a commitment to providing accurate and timely incident updates to the public and media.
- Butte County, non-governmental organizations (NGO) partners, and neighboring jurisdictions came together to swiftly meet the evolving demands of the incident.

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### Significant Areas For Improvement

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- Mass notification system failures resulted in notifications not reaching the intended audience.
- The County Emergency Operations Center (EOC) faced significant challenges with receiving information and maintaining situational awareness from the fire-affected areas.
- Gaps in the process for managing spontaneous, unaffiliated volunteers led to a host of challenges within the Camp Fire response and recovery effort.
- There were inconsistent thresholds across the County for the transition from the response phase to the recovery phase, which resulted in staggered efforts between agencies and staff, as well as extremely strained staffing conditions.



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## Conclusion

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Disasters, by definition, exceed the impacted jurisdiction's capacity to sufficiently manage a response through utilization of its own available resources. The magnitude and complexity of the Camp Fire required the assistance of state and federal governments, a plethora of response agencies, and a vast number of volunteers. The findings and recommendations of this AAR are made with the full appreciation of tragic loss of life and property that Butte County experienced.



# Introduction

This AAR provides a thorough analysis of Butte County’s response to the Camp Fire that took place from the initial reporting on November 8, 2018 to recovery efforts up to March 1, 2019. While recovery efforts continue to this day, this report synthesizes and presents a timeline of events and overarching summary of the immediate impacts of the event and actions taken by Butte County and partner organizations during and shortly after the fire took place. Information presented in this report was derived from a detailed document review, including response documentation as well as plans and procedures; an online survey; virtual and in-person interviews; and facilitated working-group sessions.

The information collected was analyzed by a team of experts to provide key findings – both strengths and areas of improvement. These findings are presented in the Analysis of Findings section of this report. These findings are organized by the critical functions of the response for ease of understanding and to provide context on the incident. Recommendations for improvement are included at the conclusion of each subsection.

An overarching sentiment shared by County responders was an overall sense of gratitude towards those that supported them – especially those that shared their recent lessons learned and best practices from Sonoma County and the City of Santa Rosa. Less than a year after the Tubbs and Nuns Fires tore through their communities, City and County staff from these previously impacted jurisdictions arrived on-site to support their neighbors in Butte County. Their recent experiences helped to positively shape the response in Butte County. Therefore, to pay it forward, this report shares specific best practices, providing tools and techniques to those communities that may benefit in their time of need.

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## Purpose and Scope of the Report

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This AAR was commissioned by the Chief Administrative Officer (CAO) with the intent to comprehensively collect best practices and lessons learned in an effort to enhance the capabilities of the County and to pass on experiences to others. Therefore, the data gathering, analysis, and reporting process mainly covers the County response to the Camp Fire, County policies and procedures, and the County-wide implications of local, State, and Federal activities. While the County is still in recovery from the Camp Fire as of the writing of this document, this report focuses on County activities between November 8, 2018 and March 1, 2019. A separate Camp Fire Recovery After Action Report will cover recovery activities such as debris management coordination and ongoing behavioral health services.



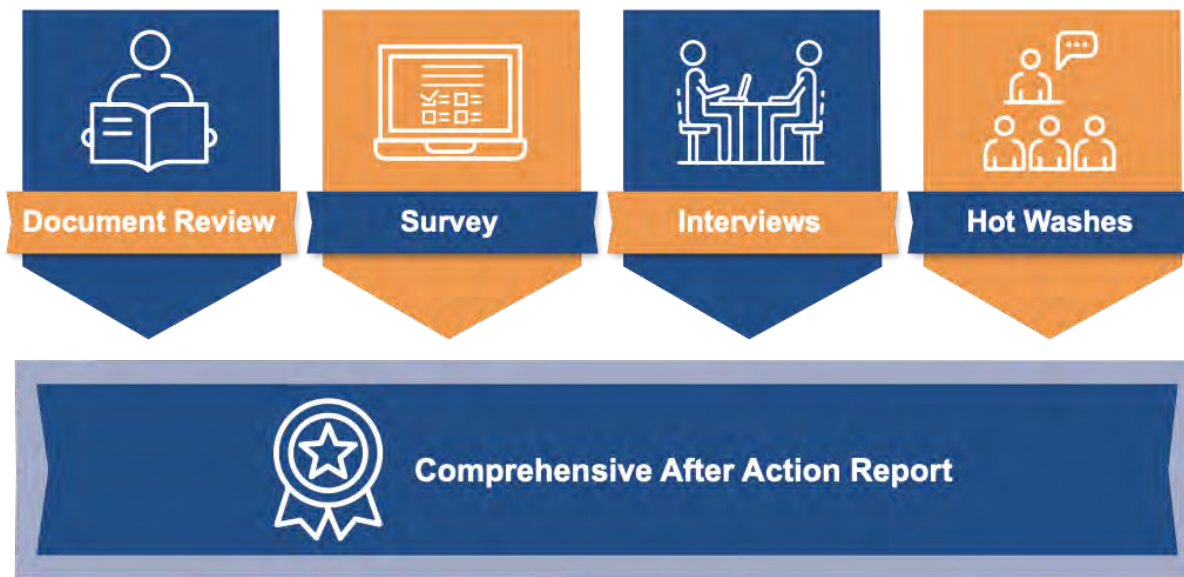


## Data Gathering Process

### Summary

This AAR has been compiled using a four-step data gathering process, as outlined in Figure 1 below. This process included a comprehensive review of pre-existing plans and incident documentation, a survey of responders and stakeholders, group interviews according to response roles, and facilitated discussions with County and partner response officials. All data was reviewed and analyzed by a team of emergency management professionals to provide a fair and honest analysis of the response and the development of realistic and actionable improvement recommendations.

*Figure 1: Camp Fire AAR Data Gathering Process*



### Document Review

Experts from Constant Associates collected and reviewed response documents along with established policies and procedures to compile the notes for this Report. A sampling of those documents includes:

- Butte County Emergency Operations Center (EOC) Action Plans
- Butte County EOC Resource Requests
- Butte County Sheriff's Incident Action Plans (IAP)
- Butte County Unified Disaster Recovery Operations Center (DROC) Activation Plans
- EOC to DROC Transition Plan
- Butte County Emergency Operations Plan (EOP)
- Butte Operational Area Policy and Procedures for Issuing Emergency Passes



## Survey

An electronic survey was developed and distributed widely to collect individual responder feedback. This data was analyzed to determine if any of the issues that were identified required further inquiry. Survey participants were asked to share what they observed as strengths as well as any issues that stifled response efforts. Survey participants were also asked to share any specific recommendations for improvement. This data provided a detailed view of the response and was used to identify data gaps which were filled through stakeholder interviews, working-group discussion, open-source research, and incident documentation review.

## Interviews

One-on-one and small group interviews were conducted to determine critical issues and strengths related to the response efforts. Interviews also provided an opportunity to discuss the root cause of issues identified through the survey and facilitated group discussion process. Approximately 11 interviews were conducted to include areas such as public information, initial alert and notification, environmental health, animal sheltering, evacuation and repopulation, and more.

## Facilitated Group Discussions - Hot Washes

Two facilitated group discussions called hot washes were designed and conducted to engage County stakeholders in refining the overall incident timeline of key events, working across departments to determine root causes of issues during the response, and collectively working towards identifying improvements.

The first hot wash focused on the County-wide response to the Camp Fire and engaged participants from County Departments, including Sheriff Honea and CAO Shari McCracken, as well as a representative from Direct Relief. The second hot wash was held specifically for the Public Health and medical community to inform the development of a public health-specific AAR.

### Partner Thoughts

“We couldn’t have done this without Mutual Aid. Responders from Santa Rosa, Shasta, Redding, and Sonoma County who had just experienced the Tubbs Fire, helped us to understand what would come next.”  
~ Shari McCracken, Butte County CAO



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## Organization of Report

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This AAR was organized in the following manner in order to give readers an overview of the Camp Fire, providing context to the unprecedented and relentless conditions responders endured, as well as the complicating factors that ensued which at times stymied the response. The core content of the report is included in the Analysis of Key Findings Section. This section organizes key findings into major themes. Those themes share strengths and areas for improvement resultant from the data collection process. Recommendations for improvement are included at the conclusion of each theme.



# Incident Overview

## Description

### Background Overview

The communities of Butte County have historically been found to be at high risk for wildfire events. Since 1999, there have been 13 large wildfires that have burned through areas of the Northern Californian foothills. The terrain and climate have routinely posed potential hazards for Butte County and resulted in numerous activations and responses. The 2008 Humboldt Fire and Butte Lightning Complex were particularly large events and precursors to the Camp Fire for Butte County.

The Camp Fire started on the morning of November 8, 2018. The Pulga community saw the early rumblings of an erupting fire that quickly spread throughout major communities in Butte County. With the downing of a power transmission line, the state's deadliest and most destructive wildfire ripped through fields, homes, businesses, neighborhoods, and entire towns. Shortly after, the onslaught of fleeing residents and massive evacuation efforts became a race against time for the community to respond to quickly and appropriately.

### Development of the Camp Fire

On November 6, 2018, Pacific Gas & Electric Company (PG&E) had notified customers of an intended power shutdown due to increasingly high winds and low humidity. The region was at very high risk for a wildfire given the development of dry, hot, and fast winds and a rapidly decreasing humidity index. The National Weather Service had issued a red-flag warning for the Northern Californian region for November 7 and 8.

With alarming weather conditions, the high fire risk resulted in the decision to cut power to portions of Butte County on November 8. PG&E warned residents on November 7 of the potential for power shutoffs. However, the power was never shutoff, and on the morning of November 8, a power transmission line issue was reported near the Community of Pulga. At 6:33 AM, the first reports of a fire in a wooded area by the Poe Creek Dam started to come in. The small brushfire had already grown to ten acres by the time first responders arrived on the scene.

The fire area was initially only accessible by a narrow dirt road, and it would have been dangerous to send engines directly to respond. In addition, the decision to call for air resources was delayed due to the high winds and sunrise limitations. By the time resources had arrived, the fire had spread 19 miles across the local mountain range.

As the fire was spreading, the Community of Pulga received the first evacuation notice at 7:13 AM. Concow and Paradise also hastily received evacuation notices. While typically agencies can



forecast fire direction, the Camp Fire was particularly unpredictable due to the weather conditions. Due to spot fires being picked up by strong wind gusts, the fires were rapidly spreading from all ends and at multiple locations simultaneously due to ember ignition. The speed of the fire affected evacuation routes, closing in cities and blocking off exits.

Both the Butte County Public Health Department (BCPHD) Department Operations Center (DOC) and the County Emergency Operations Center (EOC) activated quickly on the morning of November 8, 2018, with the DOC activated by 8:00 AM and the EOC by 9:00 AM. Staff coming in to their normal jobs between 7:00 AM and 9:00 AM that morning quickly staffed positions in the DOC and EOC, while others were immediately deployed to potential shelter locations.

As the fire ripped through the County, residents described the results as “apocalyptic”. Even as early as 8:00 AM, conditions were described as dark skies, flaring embers, and thick, smoke-filled air. Those conditions eventually became the resounding alarms for residents to begin self-evacuating whether or not evacuation orders were in place.

Most notably, the community had banded together to propel evacuation efforts in the midst of communication failures. As the fire appeared on their doorsteps, neighbors informed residents and offered evacuation assistance and eventual shelter. At one point, traffic had become so congested that many began to flee on foot. In the midst of escaping, many had stopped to pick up those who were stuck without transportation, for their cars had ignited.

Most of the senior citizen population and residents with disabilities were aided by fellow community members who offered to drive them to safety. Schools, hospitals, and other large centers were quickly evacuated in large part with the help of their own faculty and staff, who stayed behind to coordinate those efforts before leaving themselves. Some residents jumped into a creek by the Concow Reservoir; with others fortunate enough to have been rescued by other residents on boats.

Some who evacuated were able to seek shelter with family and friends nearby. Additionally, evacuation shelters were set up to house displaced residents, with the Butte County Fairgrounds and other sites being used to shelter large animals and pets. Eventually, the Camp Fire forced evacuations in Paradise, Magalia, Centerville, Concow, Pulga, Butte Creek Canyon, Berry Creek, and Yankee Hill. Additionally, it threatened several nearby communities, including the City of Chico and the City of Oroville.

## Response from the Community

Due to the speed of the fire, the response priorities quickly switched from fire suppression to evacuation. The fire was moving too quickly and there were not enough resources to stop it in time. In the midst of evacuations, first responders were diligent in directing those rescue efforts to save as many lives as possible. As resources were blocked due to evacuation gridlock, many circled around town evacuating residents and pulling them into points of protection wherever they could, such as gas stations, parking lots, and local churches. All the while, their own homes were possibly being lost in the chaos.





By November 10, resources from all over the Western United States were deployed. This included 5,596 firefighters, 622 engines, 75 water tenders, 101 fire crews, 103 bulldozers, and 24 helicopters. To further complicate matters, the Woolsey Fire in Southern California was occurring simultaneously; requiring resources from 17 other states.

## After the Fire

California Department of Forestry and Fire Protection (CAL FIRE) finally reported the fire 100% contained on November 25, after 17 days of burning. Starting on November 16, a Local Assistance Center (LAC) was opened at the local mall in Chico to assist residents in accessing services from Local, State, and Federal agencies throughout the recovery process. This was also known as the Disaster Recovery Center (DRC). Since the fire, a severe housing crisis has continued to impact Butte County. By December of 2018, the populations in Chico, Oroville, and Gridley had swelled by about 20%, with the influx of more than 20,000 people since the previous year. Many individuals lingered in shelters until the last shelter was closed in February of 2019. Some waited for temporary housing units from the Federal Emergency Management Agency (FEMA), which for some, took more than six months to secure. Since then, many residents have moved completely, with a large number moving out of state because of the high cost of living and lack of available and affordable housing in the area. Debris management and cleanup has taken up a considerable amount of resources, as the Camp Fire resulted in one of the largest hazardous material cleanup operations in the State's history. Recovery efforts continue to this day alongside efforts to rebuild in a manner that mitigates the impact of future disasters.

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## Timeline

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The following timeline reflects activities and actions that transpired in the wake of the 2018 Camp Fire, highlighting key response efforts between November 8, 2018 and March 1, 2019. The data that informed this timeline was collected from a variety of sources to include interviews with County stakeholders, hot washes, the Butte County Sheriff's Office (BCSO) Twitter feed, County EOC action plans, CAL FIRE incident documentation, and open source publications and articles. As such, it may not reflect all events that occurred, but only those deemed most relevant to provide context for the remainder of this document, and those timestamps which could be verified through provided sources.



# CAMP FIRE TIMELINE

## NOVEMBER 8, 2018

- 6:29 AM**  
Camp Fire starts in wooded area near Pulga, CA
- 6:43 AM**  
Firefighters arrive on scene
- 6:54 AM**  
Firefighters radio request for resources and evacuation
- 7:07 AM**  
Fire reaches community of Concow, CA
- 7:13 AM**  
Evacuation order issued for Pulga, CA (announced via Twitter)
- 7:15 AM**  
Evacuation order issued for Concow, CA
- 7:46 AM**  
Evacuation order issued for Eastern quarter of Paradise, CA (announced via radio notice)
- 8:00 AM**  
Reports fire has reached Town of Paradise, CA
- 8:02 AM**  
Evacuation Orders continue for Paradise, CA
- 9:00 AM**
  - First Shelter Opens
  - Sheriff's Office activates staging areas
- 9:15 AM**  
Evacuation orders initiated to the Magalia area
- 9:30 AM**  
Law enforcement incident base command post opens at Butte College
- 10:00 AM**  
National Guard arrives with team and 10 trucks of emergency supplies
- 10:06 AM**  
Evacuation orders initiated to the Butte Valley area
- 10:22 AM**  
Evacuation orders initiated to the Butte Creek area
- 1:02 PM**  
Sheriff's Office recaps overall evacuation orders for Paradise, Magalia, Concow, Butte Creek Canyon and Butte Valley (announced via Twitter)

## NOVEMBER 9, 2018

- Sacramento County Coroner's Office offers to assist with coroner's cases. All victims transported to Sacramento County
- Re-population planning meetings begin

## NOVEMBER 12, 2018

- First disaster recovery meeting initiated
- Norovirus outbreak in four shelter locations; Public Health DOC responds

## NOVEMBER 13-14, 2018

- Casualty count rises to 48; deadliest in CA history
- CAL FIRE reports 40-50% containment

## NOVEMBER 16, 2018

Local Assistance Center Opens

## NOVEMBER 17, 2018

President, Governor, FEMA Director tour Camp Fire Area

## NOVEMBER 21, 2018

CAL FIRE reports 85% of fire contained; aided by heavy rainfall

## NOVEMBER 25, 2018

- CAL FIRE reports fire is 100% contained
- Search and rescue team(s) and urban search team(s) complete search for victims

## DECEMBER 6, 2018

Began shelter consolidation and demobilization

## DECEMBER 10, 2018

Debris Removal Center opens for collection of Right of Entry Forms

## DECEMBER 13, 2018

Town Hall and community meetings begin

## DECEMBER 15, 2018

Sheriff's Office lifts remaining evacuation orders for all of Butte County within the Camp Fire affected area

## JANUARY 28, 2019

Cal OES and Cal Recycle deploy debris removal operations

## FEBRUARY 15, 2019

Last remaining shelter closes- Silver Dollar Fairground in Chico



# Analysis of Findings

## Notification Alert and Warning

### Summary

Critical to the Camp Fire response operation was the ability to rapidly alert residents and businesses of the fast-moving, unpredictable, and life-threatening fire conditions and provide information that would promote safety and save lives. The BCSO oversees the County's mass notification and alert process and is responsible for disseminating accurate and timely messages to the public leading up to, during, and post disasters. On November 8, 2018, Butte County established and maintained a forward-leaning posture with regards to notification, alert, and warning amidst a myriad of challenges presented by fire conditions, staffing shortages, and technology failures.

### Strengths

**Finding 1: Butte County's culture of collaboration, staff familiarity, and sense of dedicated responsibility empowered the notification alert and warning effort.**

It was expressed on a number of occasions during the hot washes as well as in stakeholder interviews that the frequency of disasters that Butte County has experienced in the recent past has fostered a uniquely collaborative and familiar culture among staff. While written procedures do exist for many response-related activities, staff members demonstrate a certain muscle memory when it comes to knowing what to do and who to call in the wake of major incidents. Further, this culture of collaboration has spawned a sense of dedication and responsibility to the greater team. On the morning of November 8, the lead staff member from the BCSO responsible for the mass notification process received a call from BCSO dispatch with a request to push out an evacuation order for the Community of Pulga due to fire threat. That message was sent out at 7:13 AM.<sup>1</sup> Faced with limited staffing support, the same individual remained at the helm and pushed out over two dozen alert notifications during the initial 16 hours of the Camp Fire response.

**Finding 2: Staff demonstrated uncanny adaptability in the face of system and network failures.**

The ferocity of the Camp Fire had devastating impacts on the local communications infrastructure. As the fire spread from Pulga to Paradise, an increasing amount of the power lines, phone lines, and cell towers were engulfed in flames. From the morning into the afternoon of November 8, mass notification personnel observed a steady decline in the percentage of alert notifications that were successfully delivered which, for them, was indication that the fire was destroying cell towers

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<sup>1</sup> Butte County Sheriff's Office. *Camp Fire Alert Notification Report*. BCSO, 2018



as it spread. The county's network went down on November 8 between 3:00 PM – 4:00 PM resulting in loss of internet connectivity. The mass notification personnel immediately adapted to the situation and moved the mass notification function to the City of Chico's Police Department for continuity of message dissemination.

At the time of the Camp Fire, less than 40% of the residents in the fire-affected area had signed up to receive emergency alerts. Of the 52,000 people who evacuated the foothills, only 7,000 residents had received an emergency alert notification through CodeRed. The success of the mass evacuation effort was heavily supported by the use of emergency vehicle sirens, bull horns, and word of mouth with family and neighbors to alert people of the danger and help get them to safety.<sup>2</sup>

## Areas for Improvement

### **Finding 1: There was only one trained staff person available to manage the mass notification process during most of the response phase.**

Leading up to the Camp Fire incident, there were a total of five individuals from the BCSO trained to operate the CodeRed system and help facilitate the County's mass notification process. Upon EOC activation, it was clear that an ongoing mass notification effort would be needed to prepare the public for safe and effective evacuations as well as support the overall response. At that time, one of the Sheriff's staff was out of the area on vacation. Another one of the Sheriff's staff was, unfortunately, directly impacted by the fire and was in the midst of evacuating their family from the burn area. The two dispatchers were inundated with the onslaught of calls that were coming into the dispatch center. This left only the one trained staff from the BCSO to craft and disseminate alert notifications for the entire county.

While, in past EOC activations, it has been feasible for one person to manage the mass notification process, the complexity of the Camp Fire and the rapid rate at which it spread were more than one person could sustainably manage over consecutive operational periods without reprieve. The one Sheriff's staff sent out approximately two dozen alerts during the first 16 hours of the Camp Fire response which required continuous coordination with the EOC, County departments, and the Unified Command Post (UCP).

### **Finding 2: The CodeRed system integration that empowers simultaneous dissemination of Integrated Public Alert and Warning System (IPAWS) messages failed during the Camp Fire.**

Stakeholder interviews highlighted that a significant technological shortfall was encountered between the CodeRed and IPAWS software. On the morning of November 8, Butte County's mass notification staff began disseminating alert notifications on a zone-by-zone basis to the contacts included in the County's CodeRed database, as requested by the Dispatch Center and Unified

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<sup>2</sup> Butte County Grand Jury. *Annual Report 2018-2019*. Butte County, 2019.  
<https://www.buttecourt.ca.gov/GrandJury/reports/2018-2019%20Grand%20Jury%20Report.pdf>



Command. This database includes contact information submitted by community members who opted-in to receive County alerts, E-911 data, as well as published and unpublished data. The challenge with sending notifications via this type of system, is that only those individuals that opted-in or were included in the database will receive the message. As the fire conditions worsened on November 8, the Sheriff contacted the mass notification staff and requested that IPAWS messages also be sent out alongside the CodeRed messages to reach more residents quicker.<sup>3</sup>

The staff followed the steps to trigger simultaneous IPAWS message dissemination and continued to send alerts as such for the rest of the operational period. On the morning of November 9, the mass notification staff logged into CodeRed, viewed the launch record from the previous day, and noticed that there were no launch records for the IPAWS messages. The staff immediately contacted the CodeRed representative, an OnSolve employee located outside of Butte County, to report the system failure. The CodeRed representative initiated a trouble ticket to try to resolve the issue and, in the meantime, agreed to send out IPAWS messages on behalf of the County to help maintain continuity of message dissemination.

Through further testing, the Butte County mass notification staff later discovered that they could successfully get an IPAWS message to go out when sending it as a stand-alone message and not sending it simultaneously with a CodeRed message.

**Finding 3: Butte County did not prepare for the worst case scenario with regards to testing its mass notification systems and processes prior to the Camp Fire.**

It was explained, during a stakeholder interview, that in October 2017, the County had switched its primary mass notification software from Airbus to CodeRed, largely based on CodeRed's ability to seamlessly integrate with and simultaneously push out messages through IPAWS. This decision to switch systems was prompted by a series of Vesta Communicator message failures the County had experienced with Airbus in February 2017 during the response to the Oroville Dam Spillway incident.<sup>4</sup>

While the County was proactive in switching its primary mass notification system, it did not dedicate the time and resources necessary to also ensure that the new software would support the mass notification needs of a large-scale, complex incident. In addition, the County did not leverage the system onboarding period as an opportunity to bolster its mass notification staffing capacity by training existing and new staff members in system use.

**Finding 4: Some residents expressed confusion when receiving evacuation information.**

According to correspondence reviewed on BCSO's Twitter feed, there was confusion among some residents about the County providing evacuation information while referring to fire-affected areas as zones rather than providing the exact street coordinates. The Twitter feed also shows how the

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<sup>3</sup> Zoe Todd, Sydney Trattner, and McMullen, Jane, "Fire In Paradise, Ahead of Camp Fire Anniversary, New Details Emerge of Troubled Evacuation," *PBS Frontline* (Oct 2019), [www.pbs.org/wgbh/frontline/article/camp-fire-anniversary-new-details-troubled-evacuation/](http://www.pbs.org/wgbh/frontline/article/camp-fire-anniversary-new-details-troubled-evacuation/)

<sup>4</sup> Stakeholder interview





County swiftly replied by offering the clarity residents were seeking. However, it is understood that effective mass notification efforts are rooted in the delivery of timely, accurate, and actionable information from a credible source to a need-to-know audience.

## Recommendations

### Strengths

Recommendation 1: Many Butte County staff expressed that they leaned upon previously established relationships and familiarity of standard practices to execute response activities during the Camp Fire. A concerted effort should be made to update the County's EOP that documents the best practices established as a result of past successes and lessons learned.

Recommendation 2: The mass notification staff adapted to the County's network failure by relocating its operation to the Chico Police Department. The County should identify and, where necessary, establish memorandums of agreement with alternate facilities from which it can relocate to and maintain continuity of operations in the wake of a large-scale response. The County should also regularly exercise such relocation.

### Areas for Improvement

Recommendation 1a: Butte County should analyze industry best practices and determine a baseline number of trained personnel required to sustainably staff a mass notification effort that supports a large-scale, multi-operational period, and complex incident response.

Recommendation 1b: In addition to its trained mass notification personnel, the County should identify and train a cadre of auxiliary staff who can sustainably staff a mass notification effort that supports a large-scale, multi-operational period, and complex incident response.

Recommendation 1c: Butte County should explore the feasibility of offering basic mass notification system training to all dispatch staff to further enhance the depth of staffing power for its mass notification capability. During response operations, special consideration must be given to the dispatch staffs' incident call volume and capacity to support mass notification efforts.

Recommendation 2a: The BCSO should engage the appropriate CodeRed specialists to understand the root cause of past system failures and troubleshoot the software to resolve any issues that may cause future malfunctions.

Recommendation 2b: Butte County should engage with its Operational Area stakeholders to develop an integrated, inter-jurisdictional, multi-modal, emergency notification and warning system strategy and plan.

Recommendation 2c: Butte County should engage with its civilian community, including key stakeholders who represent the persons with disabilities and others with access and functional needs (PDAFN) community to develop a well-thought-out, well-resourced, and ongoing emergency notifications education program.



Recommendation 2d: Butte County should engage with its residents, community groups, including the PDAFN community, in a re-doubled effort to increase the number of people registered for emergency notifications.

Recommendation 3: Butte County should implement a regularly-scheduled mass notification system test that simulates real-world disaster scenarios to ensure optimal functionality of system capabilities. Special attention should be given to the CodeRed and IPAWS integration for simultaneous message dissemination.

Recommendation 4: The BCSO should lead the development of an actionable Mass Notification Policy that includes relevant guidelines and tools for quickly converting field-specific language (such as evacuation zones) into public-facing messages (such as specific street coordinates) to further support public safety and mitigate confusion among residents in the future.

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## County EOC Operations

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### Summary

During the Camp Fire, the Butte County EOC rapidly and effectively activated and carried out critical coordination and communications functions in the face of unprecedented, dynamic, and catastrophic fire conditions. The first alerting text message was sent to County staff at 7:00 AM, after the fire began on November 8. The EOC was activated by 9:00 AM, and the first EOC Action Plan was developed by 12:00 PM. EOC leadership and staff implemented standardized emergency management system (SEMS) procedures and activated the County EOP. Until it transitioned from the response phase to the recovery phase and the DROC was activated, the EOC effectively performed multi-agency coordination within the Operational Area, coordinated resource requests including mutual aid, developed a common operating picture, and supported the dissemination of public information.

The sheer magnitude of the Camp Fire quickly overwhelmed the County's written plans and response infrastructure. Through the creative problem-solving and dedication of its EOC team and departmental staff, Butte County overcame a myriad of challenges including a shortage of staffing for key EOC positions, lack of field liaisons, inadequate systems and processes for resource coordination and tracking, limited information display capabilities, and an EOC facility that was too small to manage the size of the disaster.

### Strengths

**Finding 1: Experienced and committed staff were vital to the success of EOC operations.**

Butte County staff had extensive experience in EOC operations from previous disasters to include the recent Oroville Dam Spillway incident, which also necessitated a mass evacuation. Employees had developed mutual trust and the ability to quickly mesh together as a team in support of a



common mission. These factors contributed to the speed and efficiency with which the EOC activated, organized, and became functional, even in the face the catastrophic events surrounding the Camp Fire.

**Finding 2: Creative problem-solving was key to successfully addressing the unprecedented demands of the catastrophic fire.**

The widespread and dynamic nature of the Camp Fire overwhelmed the same standard plans, processes, and procedures that had worked for Butte County in response to previous disasters. Creativity and innovation were required to successfully meet the unpredictable needs presented by the Camp Fire. Two examples of EOC-level creative solutions were exhibited in the coordination between the UCP and the EOC as well as in the strategies implemented to address EOC staffing challenges.

Due to the vast and rapidly-evolving nature of the disaster, some EOC points of contact and staff were impacted by the disaster and not readily available to perform their typical EOC functions. To combat this, the EOC recruited two retired Fire Officers with both EOC and field experience to serve as EOC Liaisons, one in the EOC and one at the UCP, to ensure that communication flowed seamlessly between the UCP and the EOC.

Butte County's pool of trained EOC staff eventually became fatigued by the widespread and sustained nature of the Camp Fire and needed backup support. Traditional mutual aid resources were available to mitigate some of Butte County's staffing shortfalls. However, many of the mutual aid personnel were only available to deploy for short periods of time and lacked the local knowledge required to quickly integrate into the EOC team and effectively support the Camp Fire response and recovery mission. The County creatively brought in qualified and capable former County employees as auxiliary EOC staff. Through a Governor's Executive Order and the California Public Employee's Retirement System (CalPERS), Butte County was able to employ retired County annuitants for extended periods of time without affecting the retirees' pensions.

**Finding 3: Mutual Aid, State, and Federal Resources were accessed effectively.**

Mutual aid was a critical resource when the long and arduous demands caused by the fire conditions had overwhelmed existing staff pools. Emergency Managers Mutual Aid (EMMA) was successfully accessed and deployed. There was some deviation from SEMS by the State, as it bypassed Operational Area and Regional SEMS levels to provide direct support to the Town of Paradise. Even in light of this, the County EOC handled its responsibility effectively.

**Finding 4: Public Information was properly coordinated.**

The Joint Information Center (JIC) successfully collected and disseminated timely and accurate information to the public. The JIC coordinated nightly press conferences through which key County officials and community stakeholders communicated to the public and news media. Efforts were made to ensure that critical information reached the whole community, to include the consistent provision of a sign language interpreter at the nightly press conferences. These efforts increased public confidence as well as alleviated the media pressure that is typically felt by County officials who are in the midst of disaster response efforts.



**Finding 5: EOC response operations successfully transitioned to recovery.**

The EOC maintained effective operations under strenuous circumstances during the initial response phase but did not lose sight of the need to effectively transition to the recovery phase. As reflected in the EOC action plan, objectives were established to prepare staff for the transition to recovery and the implementation of the DROC Transition Plan.<sup>5</sup> While recognizing the staffing shortage the County experienced during the Camp Fire, it is acknowledged that the establishment of a dedicated Advance Planning Unit would be ideal in facilitating such transitions in the future.

**Areas for Improvement**

**Finding 1: Information flow between the field and the EOC was hindered at the beginning of the response.**

Due to the widespread and dynamic nature of the disaster, normal sources of field-level information from the UCP were not readily available to the EOC. Incident information did not flow entirely through defined pathways due to the speed in which the fire spread. While under normal incident conditions information may flow from a field responder to the Incident Command Post (ICP)/UCP, to the County EOC, the nature of the Camp Fire did not allow for information to flow entirely through the information sharing process. Coupled with the failure of communications infrastructure, maintaining situational awareness was difficult to achieve. To address this information gap, the EOC deployed retired Fire Chiefs to serve as UCP and field liaisons, which aided in the flow of information.

**Finding 2: The EOC did not adequately accommodate the technological and space needs of an incident of this scale and severity.**

The size and layout of the County EOC, while adequate for past emergencies, was not fully sufficient to support a large-scale, multi-jurisdictional, multi-operational period, and complex response such as the Camp Fire. In addition, the EOC was not equipped with the appropriate technology to support an efficient and effective response by the County. For instance, given the widespread and dynamic nature of the Camp Fire and all of the information it produced, there was no feasible way to adequately display critical incident-related information in support of a common operating picture in the County EOC. Informational displays within the EOC meant to project the common operating picture were inadequate, which hindered situational awareness. Improvements to the EOC could facilitate more efficient and effective management of incidents in the future.

**Recommendations**

**Strengths**

Recommendation 2a: The County should integrate the UCP / Field Liaison (e.g., using retired fire chiefs) process into existing plans and procedures and ensure that it is reinforced through all training and exercise programs facing EOC staff.

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<sup>5</sup> Butte County, *EOC Action Plan*. Butte County, 2018



Recommendation 2b: The County should build capacity by reaching out to and recruiting experienced CalPERS retirees who can serve as EOC auxiliary staff during future disasters.

Recommendation 5: A dedicated Advanced Planning Unit within the Planning and Intelligence Section of the EOC should be outlined in the County EOP as an option during large-scale disasters to ensure long-term planning issues, including the transition to recovery, are properly addressed during future disasters. This Advance Planning Unit should develop objectives related to long-term planning as part of operational period Incident Action Plans (IAPs).

### Areas for Improvement

Recommendation 1a: The UCP / Field Liaison position should be documented and integrated into the County EOP with position-specific guidance and checklists.

Recommendation 1b: A group of UCP / Field Liaisons should be recruited, trained, and included in future EOC-related exercises (e.g., retired personnel, local volunteers, etc.).

Recommendation 2a: The County should lobby the federal and State government or find appropriate funding opportunities to fund upgrades to the County's EOC, to support the needs of large-scale, multi-operational period, and complex incidents.

Recommendation 2b: Butte County should develop a guidance document outlining standardized EOC display procedures to project critical incident-related information in support of a common operating picture.

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## Public Information

### Summary

Butte County has established a robust and well-synchronized, inter-departmental system for managing its public information function before, during, and post disasters. The members of this inter-departmental network operate within distinct realms of responsibility with regards to public messaging during day-to-day operations. When disasters strike and the County EOC is activated, the individual entities work in a coordinated fashion to reach the largest number of Butte County residents, workers, and frequent visitors as possible with timely and accurate disaster-related information with a cohesive voice. Butte County's commitment to sound public information standards and practices during the Camp Fire was essential to the overall success of its response and recovery efforts. Amidst the mountainous combination of staffing shortages and network failures faced during the incident, the inter-departmental team of Public Information Officers (PIOs) and support staff from Butte County Administration, BCSO, BCPHD, and CAL FIRE worked tirelessly to support the rapidly evolving needs of the overall disaster response and recovery effort.





## Strengths

### **Finding 1: Butte County hosted nightly press conferences for the public and media outlets.**

Beginning on day one of the incident, the County coordinated and hosted nightly press conferences through which key County officials, partner agency representatives, and community stakeholders provided briefings on the impacts of the incident, shared updates regarding response operations, and provided guidance and instructions for community residents and businesses. This effort promoted transparency and hope, reiterated critical disaster information aimed at Butte County residents and businesses, and established confidence in the County's overall response.

### **Finding 2: Butte County's inter-departmental public information system was successful.**

Resulting from a history of numerous disaster responses in the past, Butte County has established an integrated, inter-departmental system for managing its public information function. During the Camp Fire, CAL FIRE was responsible for crafting and disseminating all fire-specific messaging. The BCSO was responsible for all messaging pertaining to evacuation and repopulation. The Public Health Departmental Operations Center (DOC) coordinated with the EOC in an activated Joint Information Center (JIC) to craft messages related to air quality, exposure to ash and debris, and medical care in shelters. The EOC's Care and Shelter Branch received and disseminated shelter-specific messages, including those related to animal sheltering. It was highlighted during stakeholder interviews that this system works well and helps ensure that all pertinent messages go as far and as wide as possible.

### **Finding 3: The JIC provided critical support to the Animal Care and Control mission.**

It was highlighted during several stakeholder interviews that the County experienced a growing amount of frustration from evacuated residents because of their lack of visibility and, in some cases, misinformation on how animals were being cared for, whether the animals were housed in animal shelters or sheltered-in-place on their owner's property. At the time, the evacuated residents had not been allowed to re-enter the burn area and did not have real-time perspective of what the community looked like beyond images or their own from evacuation.

To help temper this public frustration and regain public confidence, the JIC spearheaded a targeted media initiative through which video footage and images of the Animal Care and Control operation were captured and published, to include National Guard personnel conducting routine wellness checks for animals that were safely sheltered-in-place and successful reunifications between animals and their respective owners.

## Areas for Improvement

### **Finding 1: Public information preparedness efforts were not targeted to address the worst case scenario.**

It was repeatedly acknowledged through stakeholder interviews and hot washes that the frequency of past disasters and EOC activations were key contributors to the overall success of the public information efforts during the Camp Fire. However, it was also identified that Butte



County has not trained and prepared for the worst case scenario. Rather, it has mainly prepared for the disasters that it would feasibly be able to respond to within the scope of its available resources and mutual aid support. The Camp Fire presented the County a range of communications and public messaging challenges that it had never faced before. Due to the mass dispersal of Butte County residents caused by the nature of the fire, the JIC was faced with communicating with people who were displaced at distances farther and wider than it has ever seen or prepared for.

### **Finding 2: Not integrating animal-specific messaging into the public information strategy at the outset of the Camp Fire response created challenges**

Stakeholder interviews underscored that the public information and messaging released during the first few operational periods of the Camp Fire did not include animal-specific information and relevant guidance. Exacerbated by rumors and misinformation, community residents who were separated from their household pets and/or livestock began to express frustration. Animal care and control volunteers began to exhibit rogue behavior in carrying out mission assignments to include unlawfully breaking into private property to rescue animals. While the JIC eventually took deliberate strides to mitigate the adverse effects this misinformation was having on the community, it was identified as an area for improvement to include animal-specific information at the outset of the response.

## **Recommendations**

### **Strengths**

Recommendation 1: Butte County's use of the nightly press conferences was wildly successful in relaying critical incident updates and pulling the community together. The County should establish the press conferences as standard practice for all large-scale, multi-operational period, and complex incidents, particularly those involving mass evacuation and necessitating shelter operations.

Recommendation 2: Butte County should review and, as needed, update its EOP as well as any other relevant plans and procedures to document best practices pertaining to the inter-departmental public information system it has established through past response experience.

### **Areas for Improvement**

Recommendation 1: Butte County should take an inter-departmental approach to reviewing and expanding the scope of its training and exercise materials and activities targeting its public information function. The scope of future trainings and exercises should prepare the County to manage sustained public information operations in response to a large-scale, multi-operational period, and complex incident that has catastrophic effects on the County's communication infrastructure and staffing availability.

Recommendation 2: Butte County should review and revise its EOP to ensure that the appropriate Animal Care and Control representative maintains an active presence in the County EOC and/or activated JIC from the outset of an EOC activation to ensure that animal-specific information is integrated into public messaging.



## Evacuation

### Summary

What began as evacuation orders for the small Community of Pulga, the origin of the Camp Fire, quickly turned into a massive evacuation effort which lasted over 24 hours and resulted in the full or partial evacuations of the Town of Paradise, Concow, Magalia, Butte Creek Canyon, and Butte Valley. Overall, approximately 52,000 people were evacuated from their homes<sup>6</sup>. The timeline on the right shows evacuation orders posted on the BCSO's Twitter account and underscores the speed in which the fire spread.

The unprecedented burn rate necessitated a transition from fire suppression to life saving and from evacuation to taking refuge in neighborhood survival areas. However, the entire community, first responders, nurses, schools, and civilians alike, came together and performed a lifesaving effort, which may only fairly be described as heroic. Plans were overwhelmed by conditions and preparedness efforts became inconsequential, but the community exemplified resilience and solidarity, coming together to save the lives of their neighbors, friends, and family.

Challenges associated with evacuation went far beyond the immediate evacuation orders, as law enforcement made efforts to address life safety concerns, secure evacuated zones, effectively manage resources, and respond to incidents unrelated to the actual fire. As such, this section is not confined to the immediate evacuation effort but addresses the larger period in which evacuation orders were in place.

### Strengths

#### **Finding 1: First responders exemplified adaptability and innovation, transitioning from firefighting to life saving.**

Despite the unprecedented nature of the event, first responders adapted quickly, creating innovative solutions and deviating from their traditional roles. For instance, CAL FIRE deviated from

### Evacuation Notification Timeline

#### November 8, 2019

- 7:13 AM Pulga community
- 8:03 AM Pentz Road East in Paradise to Hwy 70 Town
- 8:41 AM Zones 2, 6, 7 & 13
- 8:51 AM Zones 11 & 12
- 9:22 AM South Pine Zone, Old Magalia Zone & the South Coutilenc Zone
- 9:33 AM Carnegie Zone, North Pines Zone, North Fir Haven Zone
- 10:00 AM Nimshew Zone
- 10:08 AM Lower Clark and Lower Skyway Zone
- 10:12 AM Lower Neal and Upper Honey Run Zones
- 10:24 AM Centerville & Butte Creek Areas
- 11:48 AM Pentz and 70 South to 149 including Butte College
- 11:54 AM Area of Hwy 70 from Concow South including all of Yankee Hill

<sup>6</sup> Zoe Todd, Sydney Trattner, and McMullen, Jane, "Fire In Paradise, Ahead of Camp Fire Anniversary, New Details Emerge of Troubled Evacuation," *PBS Frontline* (Oct 2019), [www.pbs.org/wgbh/frontline/article/camp-fire-anniversary-new-details-troubled-evacuation/](http://www.pbs.org/wgbh/frontline/article/camp-fire-anniversary-new-details-troubled-evacuation/)



firefighting to life saving, using bulldozers to clear evacuation routes of abandoned vehicles, fallen trees and telephone lines, and other inflamed debris. This innovative tactic allowed gridlocked individuals to effectively evacuate.

Moreover, necessitated by an inability to evacuate from the fire-affected area, shelter-in-place operations became the only tactic of survival. First responders gathered individuals in open spaces such as grassy fields or parking lots, some predesignated Town gathering points and some impromptu survival areas. Fire engines took a stand against the fire, moving with the fire and around the sheltering population. Groups of evacuees gathered in buildings and moved around the improvised shelter at the direction of first responders and based upon the movement of flames.

These operations saved the lives of many who could not evacuate in time due to the speed the fire had spread, the blocked evacuation routes, limited mobility due to disabilities and/or access and functional needs (DAFN), vehicles catching fire, or other inhibitory causes. While Butte County had no other option but to pilot test this practice in a real-world disaster, they now serve as a case study for the potential of shelter-in-place operations during wildfires. Ultimately, the adaptability of first responders and the innovative solutions which were implemented reactively to address the unprecedented nature of the fire saved many lives.

**Finding 2: The whole community came together and displayed heroism and solidarity, helping each other and those in need during the evacuation.**

Countless stories of heroism have been told about the actions of first responders, government employees, emergency medical services, and normal civilians in the accounts of the Camp Fire. Nurses, school teachers, county administrative staff, and neighbors all played a part in evacuation, performing lifesaving efforts while simultaneously trying to save their own lives. Nurses evacuated assisted living facilities, schools bussed children to safety, and hospital staff coordinated patient transfer to hospitals and shelters outside evacuated areas. Speaking to the culture of Butte County as a whole, persons with little or no prior training performed heroic acts to help their community in a time of dire need.

- 1:36 PM Lower Clark and Skyway Zones
- 1:49 PM Nimshew Zone
- 7:49 PM Area of Cherokee from Hwy 70 to the Lake South to Table Mountain Blvd
- 7:51 PM Both sides of Oro Chico Hwy from Durham Dayton north to Estates Drive
- 9:18 PM Area of Nelson Shippee Road
- **November 9, 2019**
- 1:07 AM Upper Magalia including Humbug, Lovelock, Powellton, Stirling & North Coutelenc
- 5:28 AM Stirling City & Inskip
- 12:04 PM East Bound Hwy 162/Oro Quincy Hwy at Forbestown Rd East to Mountain House Road/4 Mile Ridge Road, including Berry Creek, Brush Creek, Mountain House and Bloomer Hill



**Finding 3: Numerous assisted living facilities, senior homes, and elderly residents were effectively evacuated.**

As of the 2010 census, the population of the Town of Paradise was 26,199, with over 25% of people being over the age of 65 and a median age of around 50<sup>7</sup>. Commonly referred to as a retirement community by the media, Paradise was home to 15 residential senior homes within 18 square miles<sup>8</sup>. Despite the obvious challenges associated with evacuating this demographic group, numerous assisted living facilities, senior homes, and elderly residents were effectively evacuated with no fatalities or cases of abandoned patients. Nurses assisted patients despite the pressing need to evacuate themselves, sheriff's deputies and law enforcement personnel deviated from Standard Operating Procedures (SOPs) and placed PDAFN in the back of their patrol vehicles, and younger residents checked on elderly neighbors, assisting them in finding safety. While BCSO has pre-planned for PDAFN, law enforcement had to deviate from SOPs due to the unprecedented nature of the fire. For instance, city para-transport is usually responsible for assisting with evacuation. In this case, private bus drivers would have had to drive into evacuation areas with live fires. This deviation from established policy was common throughout the evacuation, underscoring the adaptability and quick thinking of first responders.

**Finding 4: Once a staging area for resources was established, resources were managed effectively.**

The number of resources that quickly started to arrive in the county once the severity of the incident was realized and mutual aid was activated posed challenges for resource management. However, a staging area was established quickly. This was identified as the first major hurdle that was overcome by the BCSO in trying to manage the incident. While the location of the staging area initially moved due to the highly dynamic fire hazard, the staging area found permanent residence at Butte College<sup>9</sup>. The staging area provided the needed infrastructure to effectively manage resources, including the large number of personnel contributing to the response through law enforcement mutual aid. The staging area established a central location for reporting, resource staging, and overall incident management as the UCP was co-located at Butte College near the resource staging area.

**An Unprecedented Incident**

“While firefighters and emergency responders do a great job 95% of the time, there are moments like this where conditions are so extreme that at that point, it becomes all about life safety. In order to continue to provide a high level of integrated response, we, the public safety community, need to continue to work collectively. We need to continue to develop our community evacuation plans and internal traffic and response plans and execute those during emergencies.”

~ Survey Respondent

<sup>7</sup> U.S. Census Bureau, *Quick Facts – Paradise town California*, U.S. Census Bureau, 2010

<sup>8</sup> Nuala Bishari, “*The Biggest Loss in Paradise? Its Elders*”, *SF Weekly* (Nov 2018),

<sup>9</sup> Stakeholder interview





**Finding 5: Butte County Sheriff’s Office dispatchers performed heroically, and having dispatchers embedded in the staging area proved advantageous during the evacuation.**

BCSO dispatchers performed heroically, taking a total of 1,087 9-1-1 calls in the 24-hour period of November 8, providing law enforcement with greater situational awareness surrounding the incident and fielding numerous calls from persons in life threatening situations. Dispatchers showed commitment to their job and community, efficiently and professionally handling an overwhelming number of calls, many which were from fire victims in dangerous situations. Off duty dispatchers came in to assist in operations on their days off, as the three staff on shift were quickly overwhelmed by the call volume. By 8:30am, six dispatchers were on duty, and even with increased staffing, dispatch remained overwhelmed due to the scale of the incident.

Day	Total Number of Calls
November 8, 2018	2,872
November 9, 2018	1,931
November 10, 2018	1,520
November 11, 2018	1,349
November 12, 2018	1,451
November 13, 2018	1,191
November 14, 2018	1,171

*Table 1: Butte County Sheriff’s Office Dispatch Call Volume*

The total call volume for all incoming and outgoing calls on November 8 was 2,872, as in addition to taking 9-1-1 calls, BCSO dispatchers were coordinating incoming resources, taking requests from field units, and providing administrative support to the response. Dispatch continued to operate beyond their normal capacity for weeks into the incident and provided operational support far beyond the immediate evacuation, taking requests for incident information, media inquiries, requests for rescues and welfare checks, calls from outside agencies offering support, and numerous other call types<sup>10</sup>.

**Finding 6: The Response Incident Management System (RIMS) dispatch system sufficiently supported incident dispatch needs and became an innovative pathway for additional resources.**

While the CAD system, RIMS, did crash several times due to the number of open incidents and units in the system, the system was operational again within moments of the crashes, emphasizing the system’s ability to maintain operational during unprecedented events. The RIMS system was a huge asset during the response and became a valuable pathway for additional resources. RIMS trained dispatchers were received through mutual aid, as dispatchers quickly realized that the scope of the incident would overwhelm long-term dispatch capacity. A regional tactical dispatch team of 22 dispatchers from all over Northern California provided mutual aid for two weeks, assisting in dispatch support for patrol operations, coroner’s investigations, and missing person detail. The RIMS system was noted as one of the greatest strengths regarding dispatch operations during the Camp Fire<sup>11</sup>.

<sup>10</sup> Butte County Sheriff’s Office, *Dispatch Call Log*. Butte County, 2018

<sup>11</sup> Butte County Sheriff’s Office, *Dispatch Call Log*. Butte County, 2018

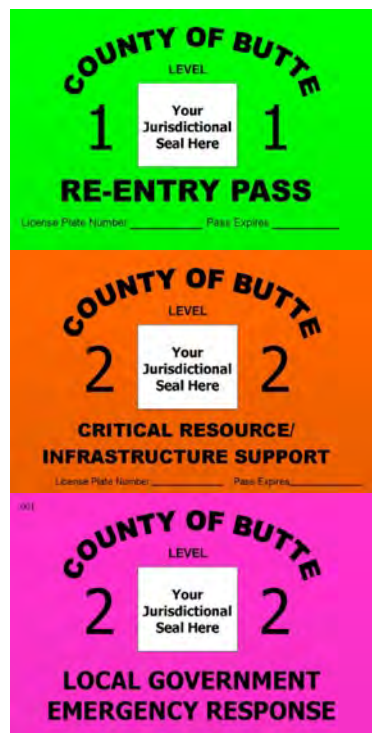


**Finding 7: The integration of law enforcement mutual aid into response operations was successful.**

Mutual aid arrived quickly, and personnel were flexible in the roles and responsibilities that they were assigned<sup>12</sup>. Although managing the large influx of resources proved difficult, processes were quickly established for the successful integration of mutual aid into the local response. Because of staffing shortages within BCSO, a local Butte deputy would take the lead of a multi-agency team. This process worked effectively in accomplishing mission objectives, for mutual aid personnel could more easily follow local plans and procedures under the leadership of local law enforcement.

**Finding 8: Security incidents within the larger incident were managed effectively.**

Within the evacuation timeframe, further security incidents transpired which BCSO had to address while simultaneously leading fire and evacuation-related operations. Areas under mandatory evacuations became targets of theft, and one CAL FIRE Station was even burglarized during the incident<sup>13</sup>. Additionally, an officer-involved shooting took place on November 15, as police confronted, and ultimately neutralized, a double homicide suspect<sup>14</sup>. Incidents such as these spanned the evacuation period and challenged the already overwhelmed local law enforcement. Staffing these incidents was particularly challenging, as it took personnel away from response operations, an already understaffed effort. Despite this, security incidents during this time were handled effectively due to the adaptability of law enforcement, which eventually led to a well-organized effort to secure the evacuated zones.



Example passes.  
Source: Emergency Pass Policy.

**Finding 9: The Emergency Pass Policy was validated through its activation during the Camp Fire.**

The Camp Fire was one of the first times the Emergency Pass Policy was used (these were also used to a lesser degree during the Spillway Incident). The Emergency Pass Policy allows people with certain credentials, such as utility providers, contractors, and vetted volunteers, the ability to move through restricted areas. This process was necessitated by the 2008 fires and led the County to develop the process. The Camp Fire validated this policy, which successfully allowed those with a substantiated need to access restricted areas.

County employees and other critical resources were issued a pass, which allowed them to pass through roadblocks and check points based on their mission needs. For example, external assistance

<sup>12</sup> Hot Wash Discussion

<sup>13</sup> Michael McGough, "Two arrested for looting CAL FIRE station during Camp Fire, authorities say," Sacramento Bee (Nov 2018), <https://www.sacbee.com/news/california/fires/article221892190.html>

<sup>14</sup> Butte County District Attorney, *Hendrix OIS – Final Report*. Butte County, 2018



came from PG&E in unmarked vehicles to restore power lines. Without the Emergency Pass Policy, law enforcement would have stopped them and prevented them from entering restricted zones. Agencies contacted the EOC and would report their agency's needs. The EOC would then issue these entities a pass based on their objectives within the restricted areas.

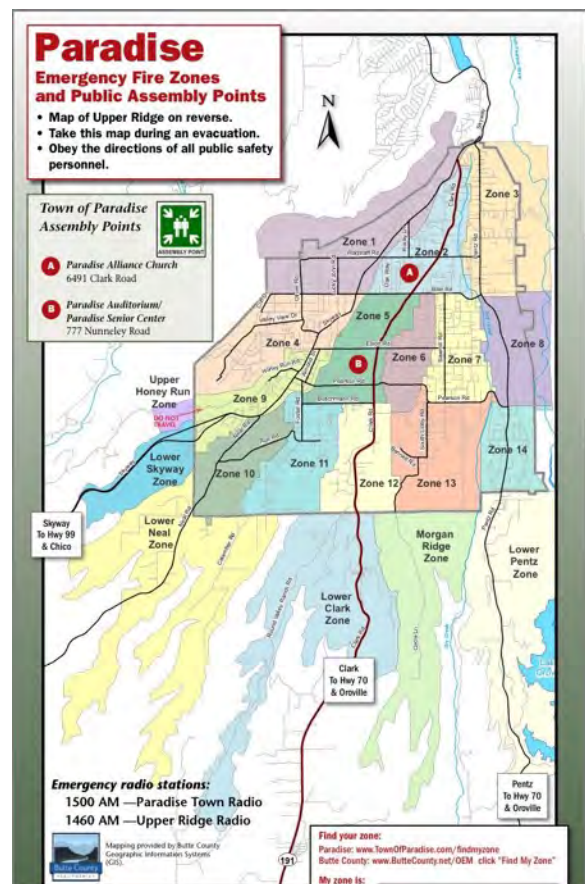
The Emergency Pass Policy was noted as a major strength, providing a process for law enforcement to grant access to restricted areas to those with a valid, operational purpose and restrict access to individuals without proper credentials.

## Areas for Improvement

### Finding 1: Contraflow proved ineffective for evacuating entire communities as opposed to specific evacuation zones.

While a detailed Evacuation Plan for the Town of Paradise exists and is socialized each year (the plan is mailed to residents and residents practice evacuation regularly in addition to the fact that it has been utilized in previous incidents), the plan was never intended to support the evacuation of the entirety of Paradise<sup>15</sup>. The failure of the Evacuation Plan and more specifically, the contraflow process, was multi-causal.

1. Evacuees were initially hesitant to drive on the opposite side of the road, through traffic signals, and faster than the speed limit. Law enforcement personnel did not have enough manpower nor enough time to staff all intersections early in the evacuation to guide these public actions. While Contraflow has been exercised by evacuation zone in Paradise, contraflow of the entire town had not been practiced, and residents were unprepared to execute the process.
2. Downed power lines, abandoned vehicles, and the fire itself blocked transportation routes and impeded the flow of traffic. Evacuation routes were quickly blocked as the fire spread at an unprecedented rate. Resources were not



Paradise Evacuation Zones. Source: Butte County Website.

<sup>15</sup> Damon Arthur, "Many Fire-prone California Towns Don't Plan for Evacuations," Bloomberg (Apr 2019), <https://www.bloomberg.com/news/articles/2019-04-25/fleeing-fire-common-in-california-evacuation-plans-aren-t>



available fast enough to clear critical routes and allow for the flow of traffic before the fire spread, making any evacuation impossible.

3. Contraflow failed once it got to other towns and intersections that were not prepared for the flow of traffic. Towns receiving evacuees were not prepared for the influx of traffic and did not take preemptive action to assist in the movement of vehicles through their jurisdiction. A normal drive from Paradise to Chico takes around 20 minutes, but because of blocked transportation routes this was taking some residents as long as four hours<sup>16</sup>. Additionally, the County has a plan for Contraflow, but there is little coordination beyond the County at the State level, impeding Contraflow operations beyond the County.

**Finding 2: Situational awareness was difficult to maintain during the evacuation timeframe.**

Situational awareness surrounding the fire was difficult to maintain. The speed the fire spread made it impossible to continuously know the location of the fire. The fire sparked fires one to two miles ahead of the main fire front. Some areas burned without the BCSO knowing, including areas within evacuation routes. Additionally, the smoke from the fire turned the day of Paradise into night, complicating the evacuation immensely. Beyond the fire itself making situational awareness difficult to maintain, communication failures also posed challenges. Radio communications, including a lack of coordination surrounding agreed upon frequencies, led to difficulties communicating and exacerbated situational awareness issues. Other communications lines also failed, limiting incident information coming in from the field to the ICP. However, BCSO established a process, which proved successful in maintaining greater situational awareness. BCSO placed lookouts in the field to report back real-time information. This became a best practice and greatly improved situational awareness<sup>17</sup>.

**Finding 3: Non-evacuated areas sequestered within evacuated zones could have been provided resources and support in a timelier fashion.**

Some non-evacuated areas surrounded by communities which had been evacuated quickly saw challenges, as they were isolated within evacuated zones. These communities could not easily access surrounding cities and their subsequent resources, leading to fuel and other resource shortages. Determining which residents stayed in the area led to additional challenges, and necessitated door-to-door checks. Eventually, select transportation routes were opened to accommodate these individuals, and needed resources were trucked into isolated zones. However, this need could have been realized and addressed in a timelier fashion.

**Finding 4: Dispatch operations were impacted due to the structure of and processes associated with the 9-1-1 calls within the county.**

There were numerous challenges associated with the 9-1-1 system. The first 9-1-1 call reporting the fire in Pulga occurred at 6:35 AM and was received by California Highway Patrol (CHP) and

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<sup>16</sup> Jeffrey Mize, "Grim Lessons Learned and Warnings from California Fire Stories," *Government Technology* (Sept 2019), <https://www.govtech.com/em/preparedness/Grim-Lessons-Learned-and-Warnings-from-California-Fire-Stories-.html>

<sup>17</sup> Stakeholder interview





then transferred to CAL FIRE. BCSO did not become aware of the fire until 6:45 AM on November 8, when CAL FIRE requested the evacuation of Pulga. Additionally, the 9-1-1 system was majorly overwhelmed by the call volume. BCSO, Chico Police Department (CPD), Oroville Police Department (OPD), Gridley Police Department (GPD), Paradise Police Department (PPD), and Chico California State University Police Department (CSUPD) share a hosted telephone system which routes 9-1-1 calls to a backup agency. During the incident, CPD was PPD's and BCSO's backup. Therefore, when PPD evacuated, and when BCSO was unable to answer calls within 30 seconds, all calls were routed to CPD<sup>18</sup>.

### **Finding 5: Managing personnel resources was a major challenge.**

Staff resources were difficult to manage throughout the evacuation period. At first, prior to the establishment of a staging area, there was nowhere for incoming personnel resources to report. This was in part due to having four different ingress routes to the affected areas that were long distances away from one another and the immediate need to get personnel into the areas that needed to be evacuated. Additionally, the extreme speed of the Camp Fire and the overwhelming amount of local resources responding made it difficult at the onset to manage all personnel responding to the incident. This led to the self-deployment of resources.

BCSO had to take measures to socialize and reiterate the process that had been instituted for managing personnel resources to ensure all agencies involved were following SOPs. As the evacuation period progressed, command and management staffing became more difficult. Some command and management staff were working nearly around the clock for three to four days before getting a break. It was a constant struggle to determine who was going to work the next shift. Eventually, it became difficult to staff administrative positions and maintain daily operations.

## Recommendations

### Strengths

Recommendation 1: Identify strategic locations for community/neighborhood survival areas within the County. Harden these locations against fires and socialize these locations to residents.

Recommendation 2: Identify decision points for the transition from firefighting to life saving and document these practices within plans.

Recommendation 3: Determine alternative methods to evacuate when city para-transport cannot perform evacuation functions due to the severity of the fire.

Recommendation 4: Identify multiple, pre-vetted locations for staging areas within the county. Harden these locations against fires and socialize these locations to response agencies.

Recommendation 5: Document the integration of dispatchers into the staging area and clearly define their roles and responsibilities.

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<sup>18</sup> Butte County Sheriff's Office, *Dispatch Call Log*. Butte County, 2018





Recommendation 6: Anticipate a high call volume to dispatch upon incident initiation and request mutual aid support for dispatch early on in the incident.

Recommendation 7: Document the process of having multi-agency teams led by local law enforcement to further optimize law enforcement mutual aid.

Recommendation 8: Anticipate “incidents within the incident” and preemptively request additional personnel resources to assist in security operations.

Recommendation 9: Document lessons learned from the testing of the Emergency Pass Policy through its activation in the Camp Fire and update the plan accordingly.

### Areas for Improvement

Recommendation 1a: Design and implement a public awareness campaign surrounding contraflow practices and integrate into public education materials regarding evacuation.

Recommendation 1b: Develop in conjunction with Operational Area, Regional and State stakeholders a truly interjurisdictional coordinated mass evacuation plan. Further coordinate contraflow planning with surrounding jurisdictions and the State to ensure its success beyond the Town of Paradise. Carry out limited contraflow and evacuation drills with voluntary resident participation to educate the public and train staff in evacuation techniques.

Recommendation 2a: Pre-identify radio frequencies for communications amongst all mutual aid partners and further implement communication redundancies.

Recommendation 2b: Document the “look-out” method for establishing greater situational awareness and establish reporting procedures.

Recommendation 3: Document the process of providing resources to areas isolated within evacuated zones.

Recommendation 4: Critically evaluate the 9-1-1 system and the process of backup agencies regarding dispatch to determine if another process would more effectively meet the county’s needs during disaster.

Recommendation 5a: Document the process of establishing a staging area immediately upon incident initiation and the process for communicating the location of the staging area with response partners.

Recommendation 5b: BCSO should review existing plans and make updates as necessary to include a process for identifying and establishing staging locations outside the affected area to send and stage emergency vehicles during mass evacuation incidents.



## Sheltering and Reunification

### Summary

Butte County demonstrated tremendous resolve with the rapid provision of shelter resources to accommodate its displaced populations. Twelve shelters were opened by the end of day one with an estimated 32,000 people sheltered over the course of the event across four counties.<sup>19</sup>

An unprecedented number of staff and volunteers came together to support shelter operations across the region. Staff remained agile in the execution of shelter operations amidst changing conditions posed by an aggressive and unpredictable fire, a growing number of displaced individuals seeking shelter, and a myriad of complex issues posed by the temporary co-habitation of individuals with varying needs.

### Strengths

#### Finding 1: Butte County, NGO partners, and neighboring jurisdictions came together to ensure that shelters were activated swiftly.

The Camp Fire began at 6:29 AM on November 8, 2018.<sup>20</sup> By 7:04 AM, there was a call to assist with evacuations from the immediately affected areas and,<sup>21</sup> in lockstep, staff initiated the process of identifying candidate shelter sites. By 9:00 AM, the first shelter at Oroville Nazarene Church was open, followed by shelters at Neighborhood Church, Butte County Fair Grounds, and the Old Oroville Hospital (a shelter for small animals). Shelter assessments were bypassed for some venues in order to make them available as quickly as possible. Recognizing that American Red Cross (Red Cross) requires two hours to activate and deploy to a shelter, County staff readily responded to the call to supplement shelter activation duties until a transition could occur to the Red Cross. By the end of day one, a total of twelve shelters were activated including both County and community-operated shelters. These shelters were selected based on the availability of the venue, its proximity to the fire, and the availability of staff to support it. Given the indicators that this fire would cause mass evacuation not just from the towns of Paradise and Pulga but from the County as a whole, some of the shelter sites were outside of Butte County's borders.



Shelter status boards in the Butte County EOC. Source: Butte County staff.

<sup>19</sup> Mackey, Meaghan. "Camp Fire Shelter or Homeless Encampment: Red Cross still sheltering hundreds in Chico." *ABC 7 KRCR News*, Sinclair Broadcast Group, 11 Jan 2019, <https://krctrv.com/news/camp-fire/camp-fire-shelter-or-homeless-encampment-red-cross-still-sheltering-hundreds-in-chico> and stakeholder interviews

<sup>20</sup> Butte County Sheriff's Office, *Dispatch Call Log*. Butte County, 2018

<sup>21</sup> Butte County Sheriff's Office, *Dispatch Call Log*. Butte County, 2018



**Finding 2: The services, supplies, and equipment that were availed at the shelters substantially met the needs of the affected population.**

Butte County's recent prior involvements with large-scale disasters provided invaluable experience in shelter operations, which were swiftly leveraged for response to the Camp Fire. In particular, staff were familiar with some of the key resources that needed to be ordered with immediacy. EOC resource request records from day one of the incident show a wide array of supplies that were ordered from the onset. Basic resources, such as food, water, cots, and bedding, were ordered as well as resources that are often overlooked or delayed, such as American with Disabilities Act (ADA) compliant showers and port-a-potties, canes, wheelchairs, and C-PAP machines.

**Finding 3: EOC staff and law enforcement leadership maintained situational awareness about shelters throughout the course of the events.**

Event documentation demonstrates that EOC staff and law enforcement leadership were aware of, and planned actions in support of, shelters. From day one through day 14, EOC Emergency Action Plans (EAP)<sup>22</sup> specifically show that addressing shelters was an objective for the EOC Operations Section and the Logistics Section. As the events progressed, information in the EAPs shifted to include elements such as whether shelters were full, what shelters were planned for use as long term shelters, demobilization plans for shelters, shelter security and the like. From day three through day 20, Sheriff's briefings contained shelter information, including the name of the shelter, the address, whether the shelter was full, and (if not full) the number of cots available at the shelter.<sup>23</sup> This consistent state of awareness and prioritization of shelters by leadership and across agencies is a significant contributing factor to the many successes attributed to shelter operations.

**Finding 4: Agency representatives were helpful in supporting the execution of shelter operations.**

A representative from the Red Cross as well as a representative from the California Department of Child Development and Family Services (CDFS) were assigned to the Care and Shelter Branch (by day 2 and day 3 respectively) as key support elements in availing resources, assisting with situational awareness, and enabling strong lines of communication across agencies. Described as "problem solvers and fixers", these representatives provided critical support across a varied landscape of shelter related issues, to include assisting with the relocation of populations at spontaneous shelters and sharing the rotation of field duties



Staff caring for people evacuated from a nursing home. Source: Butte County staff.

<sup>22</sup> Butte County, *Emergency Action Plan*. Butte County, 2018

<sup>23</sup> Butte County Sheriff's Office, *Sheriff's Briefings*. Butte County, 2018



versus EOC duties. This enhanced liaison model was newly introduced for this event and staff indicated that it worked well.

**Finding 5: Onsite shelter liaisons assisted with the flow of communication from shelters to the EOC.**

After the 2017 Oroville Spillway Incident, shelter practices were examined and revised to include an onsite liaison who would serve as a communication conduit between the shelter and the Care and Shelter Branch. This liaison method was used for both County operated and Red Cross operated shelters. Liaisons were charged with providing regular updates on shelter census, reports on issues and how they were resolved, and more. This practice provided significant benefit in assisting the Care and Shelter Branch with getting information in a timely manner.

**Finding 6: The Care and Shelter Branch was consistently staffed.**

EAPs from day one through day 14<sup>24</sup> indicate that the Care and Shelter Branch was steadily staffed at the EOC. Records show that typically, one to three staff members were assigned to support Care and Shelter activities during a given Operational Period. Among their many duties, these staff ensured that shelter numbers were tracked in the EOC, that there was communication involving the capacity of shelters and when to open another shelter due to reaching capacity, and communication was continually shared regarding resource requests coming from shelters.

**Finding 7: Repopulation reduced the need for shelter capacity.**

Repopulation, which occurred incrementally, was a key priority for the County. Residents vocalized their desire to return to their homes, understandably, and County staff recognized that repopulation would be a pivotal factor in community recovery and healing. In tandem, availing opportunities for people to return to their homes meant that the need to house people at shelters would be eased.

**REPOPULATION'S IMPACTS ON SHELTERING**

Community members impacted by the fire vocalized their desire to return home, even with the understanding that their home and the surrounding areas may have been severely damaged. Butte County responded by prioritizing repopulation and providing an opportunity for people to return home as soon it was possible and deemed safe. This not only served the desire of the community, but it worked to reduce the number of people at the shelters.

**Finding 8: A center for providing support to families affected was made available by the County.**

According to the Unified DROC Activation Plan dated November 28, 2019, a "Family Support Center/Mass Casualty [Center]" was made available to provide services to those who lost loved

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<sup>24</sup> Butte County, *Emergency Action Plan*. Butte County, 2018





ones. Objectives of the center at this time were to 1) create ongoing objectives and priorities for the DROC structure, 2) identify the appropriate people from each jurisdiction as needed to fill/populate this functional branch, 3) provide a resource and information center for family members who have lost loved ones in the Camp Fire, and 4) reassess needs of the center population on an on-going basis. The County was able to directly engage with about 85% of the next-of-kin/families of the (then) 85 decedents.<sup>25</sup> The center was a “by invitation only” operation and deliberately not publicized. The staff conducted outreach and made contact with next-of-kin to offer support with tasks such as obtaining death certificates and understanding how to handle the processing of remains. Many of the surviving family members returned to the Family Support Center multiple times. The center remained active through January 12, 2019, and across its lifespan the following agencies and organizations provided support: Red Cross, Butte County Department of Employment and Social Services (DESS), Public Guardian/Public Administrator, Butte County Office of Education, BCSO, California Funeral Directors Association, Cal OES, California Department of Social Services-Disaster Services, Cal Northern School of Law, Church of the Brethren, and FEMA.

**Finding 9: Multiple avenues were leveraged to facilitate reunification.**

The volume of displaced individuals coupled with the high fatality number made for a significant number of individuals in need of reunification. Additionally, the number of missing persons would fluctuate greatly as dispatch calls and other records were reconciled. As an example, the number of missing persons rose from 297 on November 14, 2018, to 631 on November 15, 2018. To facilitate reunification efforts, multiple avenues were leveraged, including use of the County website to publish names of missing persons and the Red Cross’s Safe and Well website.

**Areas for Improvement**

**Finding 1: The County and the Red Cross have differing policies regarding the criteria for acceptance at a shelter.**

The Red Cross has maintained a long-standing policy that “everyone is welcome at a Red Cross shelter.”<sup>26</sup> However, the County’s practice has been to require identification and proof of residency (in the evacuated area) for potential shelter clients. The differing practices and the way in which they were rolled out caused complications. The Red Cross’s policy for accepting everyone at shelters resulted in the shelters serving as a home for persons described as pre-disaster homeless which brought to bear a complex myriad of needs that were not adequately planned for in the shelters. The County’s practice for requiring proof of residency was not initially implemented but was incorporated later in the response.

**Finding 2: There were security issues with shelters.**

Stakeholder interviews reveal two gaps with security related to shelters: (1) security requirements for County supported shelters were costly, far exceeding forecasted amounts due

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<sup>25</sup> Stakeholder interviews.

<sup>26</sup> “Find Open Shelters.” American Red Cross, The American National Red Cross, <https://www.redcross.org/get-help/disaster-relief-and-recovery-services/find-an-open-shelter.html>





to expenses from contract security from out-of-area vendors, and (2) community run shelters provided their own varying degrees of security, which led to inconsistencies and gaps in safety standards. One example involved a non-County shelter that engaged a motorcycle club to provide security.

## Recommendations

### Strengths

Recommendation 1a: DESS in coordination with OEM should establish MOUs with shelters that are outside of Butte County.

Recommendation 1b: Butte County OEM should revisit County policies to ensure that County staff have the authorization and liability protection to work at shelters outside of Butte County.

Recommendation 1c: Butte County DESS, in coordination with OEM and BCPHD, should revisit County policies to select shelter sites to further ensure that critical factors such as the identification of shelters outside of the County and traffic patterns are included with other decision-making criteria for shelter site selection.

Recommendation 1d: Butte County DESS, in coordination with OEM, should continue to proactively inform community partners of the requirements and liabilities of community-operated shelters.

Recommendation 2: Butte County DESS should create a quick reference document that Care and Shelter staff can use as a tool when requesting resources initially for shelters.

Recommendation 4: Butte County OEM, in coordination with DESS, should consider the revision of existing shelter policy, plans, and procedures to include the formal incorporation of agency representatives from the Red Cross and CDSS for emergency shelter operations.

Recommendation 5a: Butte County OEM, in coordination with DESS, should consider the revision of existing shelter policy, plans and procedures to include the formal incorporation of onsite shelter liaisons.

Recommendation 5b: Butte County OEM, in coordination with DESS, should review and, as necessary, enhance annual training that is provided to shelter liaison staff and alternates to ensure full acclimation to expected roles and responsibilities.

Recommendation 6: Butte County DESS, in coordination with OEM, should recruit and train additional staff who can serve in the Care and Shelter Branch of the EOC.

Recommendation 7: Butte County OEM, in coordination with DESS and law enforcement, should ensure that repopulation and its effects on shelter operations are addressed in planning documents.



Recommendation 8: Clarify the name and purpose of the Family Support Center/Mass Casualty [Center]. Public Health's EOP includes a brief, single paragraph mention of Family Reunification Centers and Family Assistance Centers, but not Mass Casualty Centers. It was not clear which of these categories, if either, were applicable. Document a county-wide policy for use of these centers and use consistent terminology between departments. Consider creating a County-wide plan or integrating this as a section or annex to the EOP.

Recommendation 9: Butte County OEM and the BCSO should examine practices that were leveraged for reunification to determine which should be documented for future use.

### Areas for Improvement

Recommendation 1: Butte County OEM, in coordination with DESS and the local Red Cross chapters, should collaborate on mutually agreed upon policies regarding the acceptance of shelter clients. As possible, these policies should address the sheltering needs of pre-disaster homeless populations and articulate considerations for when address verification should be waved during events where intake must be extremely truncated.

Recommendation 2: Butte County OEM, in coordination with DESS should create a working group and develop a Volunteer Management Plan that outlines a comprehensive strategy for SUV management and incorporates lessons learned from the Camp Fire.

Recommendation 3a: Butte County DESS, in coordination with OEM, should continue to proactively inform community partners of the requirements and liabilities of community-operated shelters.

Recommendation 3b: Butte County DESS, in coordination with OEM, should create a working group to draft a county-wide Mass Care and Shelter Plan or Annex to the EOP.

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## Walmart Camp

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### Summary

In the aftermath of the Camp Fire, a large gathering of people took temporary residence in Chico across from the 20th Street Mall in the Walmart parking lot and its adjacent field. What may have initially begun as a small number of Camp Fire survivors seeking refuge in an open and spacious public parking area, increasingly grew into its own population of hundreds of vehicles and tents. As the Walmart Camp grew in size, it attracted individuals and entities looking to support community members who were adversely affected by the fire. Food trucks and insurance company trailers were among those who established a persistent presence in the camp. Well-intentioned community members began dumping random donations off at this camp with the aim of the donated items reaching those who had the most critical needs. The Walmart Camp became its own community and was eventually represented by a self-proclaimed "Mayor" who worked strategically to establish some semblance of a governing system and to help facilitate the provision



of disaster relief services and resources. It is important to note that this camp was established on private property and was not operating under the guise of the County's guidance, support, and organizational structure. In addition, the City of Chico had to request County assistance and intervention due to a host of public health and safety issues which they could not address.

## Strengths

### **Finding 1: The City of Chico and the County recognized and attempted to honor the fact that community members had the right to naturally organize themselves and do what they deemed necessary in order to survive and recover from the Camp Fire.**

The City of Chico and the County did not immediately step in and attempt to shut down or take control of the Walmart Camp. It was emphasized during stakeholder interviews that the County recognized that its jurisdictional authority could not automatically dictate what was being sanctioned on Walmart's private property<sup>27</sup>. It was not until very apparent issues affecting public health and safety were at play that the City requested assistance and the County began to get involved and work alongside Walmart's leadership team and the self-proclaimed "Mayor" of the camp to provide sustainable solutions that aligned with the County's disaster recovery structure.

### **Finding 2: The City and the County embraced a collaborative, inter-disciplinary approach to helping resolve the public health and safety challenges that were presenting at the Walmart Camp.**

There was a growing list of concerns impacting the health and safety of those who took temporary residence at the Walmart Camp. Among them were the cold weather conditions and lack of heat<sup>28</sup>, the presence of improperly disposed syringes and needles sprawled throughout the area, the lack of infrastructure and staff to support the onslaught of donated goods that were being dropped off on the grounds, and the revelation that nearly half of the camp's dwellers were not directly affected by the Camp Fire but were individuals who had been experiencing homelessness before the incident and were there to take advantage of the free resources that were being availed there. To resolve these issues, an inter-disciplinary team comprised of Butte County DESS, the California Department of Social Services (CDSS), and the Red Cross worked collaboratively with other Butte County departments, the City of Chico's Police Department, Walmart's store-level and corporate leadership personnel, and the self-proclaimed "Mayor" of the Walmart Camp to properly assess the situation and then identify right-fit solutions<sup>29</sup>. At one point, the assessment team counted 187 tents and trailers in the field next to Walmart. The team performed a "knock and talk" with each of those trailers to identify what their situations were and to understand exactly what level of support they needed. To disperse the population of individuals who were experiencing pre-disaster homelessness, the team gradually demobilized the provision of free food at the camp. The team

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<sup>27</sup> Stakeholder interviews.

<sup>28</sup> NBC News, "Fire evacuees take residence camping at a Walmart parking lot in Chico, California," (Nov 2018), <https://www.nbcnews.com/video/fire-evacuees-take-residence-camping-at-a-walmart-parking-lot-in-chico-california-1377417283737>

<sup>29</sup> Stakeholder interviews.



worked with Camp Fire survivors who needed shelter to get them checked into the appropriate, County-supported shelters.

## Areas for Improvement

The areas for improvement impacting the Walmart Camp have already been addressed in other sections of this report. There are no additional areas for improvement at this time.

## Recommendations

### Strengths

Recommendation 1: The City of Chico and the County should continue to educate local and private businesses on the potential liabilities for spontaneous camps and gatherings on private property after a disaster. This could be addressed through outreach to a local chamber of commerce or documented in guidance for local businesses in disaster preparedness.

Recommendation 2a: Butte County DESS should continue to nurture collaborative working relationships with CDSS, the Red Cross, and other key stakeholders in support of future mass care and sheltering operations. Where appropriate, Memorandums of Understanding (MOUs) should be established and delineated in the County's Mass Care and Shelter Plan.

Recommendation 2b: Leveraging the lessons learned from the Camp Fire response, Butte County should initiate deliberate preparedness and planning efforts in conjunction with Cities to bolster its public-private partnerships with key businesses and organizations to include but not limited to Walmart. Where appropriate, MOUs should be established and delineated in the County's Mass Care and Shelter Plan and local City EOPs.

### Areas for Improvement

There are no recommendations at this time.

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## Donations Management

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### Summary

One of the most remarkable displays of humanity and care for those affected by the Camp Fire was the tremendous outpouring of generosity by way of commodity and monetary donations. Beginning in the immediate aftermath of the fire and extending throughout the recovery phase, individuals and organizations from within Butte County and from across the globe shared their resources to help meet the most pressing needs of the disaster survivors. It became apparent very early into the response that the County had exceeded its ability to manage the massive influx of donations it was receiving. Through the application of expertise and knowledge, the leveraging of strategic partnerships, and the dedication of Butte County staff and volunteers, the



County was able to establish the necessary processes and systems to stabilize the donations management function and support the needs of Camp Fire survivors.

## Strengths

### **Finding 1: The systems and structures provided by AmeriCorps were invaluable to the County's success in managing the overwhelming amount of donations it had received.**

There was no existing process in place for taking in the amount of donations that inundated the response. In the absence of pre-established plans, protocols, and procedures, the system was quickly overwhelmed. The County then solicited the help of AmeriCorps, who came in and, approximately 2 weeks into the response, powered the entire donations management function by implementing the needed systems and processes. The work of AmeriCorps proved to be invaluable through the remainder of the response phase and into the recovery phase.<sup>30</sup>

### **Finding 2: Butte County's ability to remain adaptable in meeting the evolving needs of the community was outstanding.**

It was highlighted during stakeholder interviews that the County is very well trained in EOC operations. Because of the many past EOC activations, the County is, generally, very well prepared. However, the size and scope of the Camp Fire forced the County to adapt a whole new model of operating that they had never experienced before. Because of the scope and complexity of the incident, they had to repeatedly refine their processes in order to remain on target with the needs of the disaster as it evolved.

### Reflection

"I dedicated 35 years of my career to public service. For more than 20 of those years, I served at the executive management level. We have never been hit as hard as we were hit by the Camp Fire. Nothing compares to what we faced."

~ Starlyn Brown, retired Assistant CAO, Donations Management Lead during the Camp Fire.

## Areas for Improvement

### **Finding 1: The County lacked an adequate system for properly receiving, storing, and matching donations with identified needs across the entire community.**

Many of the donations received during the Camp Fire had very specific intended placements and uses. For example, almost 50 desks were donated at one time in an effort to help schools get their learning spaces back up and running.<sup>31</sup> Within the EOC and DROC structures, there was no comprehensive system for tracking donations from the time they were offered or received to the time they were successfully delivered. Such a system would need to take into account all of the entities affected by the disaster across the County. The system would also delineate basic startup procedures such as quickly identifying and activating a dedicated phone number for donations and publicizing it along with all other pertinent information for the public.

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<sup>30</sup> Stakeholder interviews

<sup>31</sup> Stakeholder interviews





## **Finding 2: The County lacked adequate guidance and policies specifically related to donations management.**

It was underscored during stakeholder interviews that, due to the frequency of disasters in the region, the County is well prepared for managing donations for more typical incidents, but managing donations at the scale created by the Camp Fire is something that the County had never prepared for. When the Camp Fire occurred, the County did not have a written plan that comprehensively addressed the donations management function. As such, the staff and volunteers were creating systems and processes from scratch. Beyond the proper handling of donated clothing, personal hygiene items, and other commodity goods, one of the items that created a huge challenge for the County was gift cards. A bag filled with gift cards was dropped off with the expectation that the County would distribute them to disaster survivors. However, the County did not have a policy in place regarding the use, storage, and dissemination of gift cards.

## Recommendations

### Strengths

Recommendation 1: Butte County should examine best practices and lessons learned from the Camp Fire and secure the necessary partnerships with AmeriCorps or other organizations in order to successfully manage donations during a large scale, complex, multi-operational period incident in the future.

Recommendation 2: Butte County should continue to harness the collaborative, mission-focused, and adaptable culture of its employees through ongoing team building, training, and exercise efforts.

### Areas for Improvement

Recommendation 1: Butte County should establish an inter-departmental and multi-disciplinary team of County stakeholders to examine and document the donations management-specific best practices and lessons learned during the Camp Fire response and recovery efforts. Further, this team should develop a list of recommendations to inform the development of a Donations Management guidance document.

Recommendation 2: Butte County should develop a comprehensive Donations Management Plan or Annex to the County's EOP. Further, the annex should be trained to and then validated through a planned exercise.

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## **Animal Care and Control**

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### Summary

Butte County's natural habitat and private property are home to thousands of animals including household pets and livestock. Due to the extremely rapid and sporadic travel pattern of the Camp Fire, many residents and livestock owners in fire-affected areas were forced to evacuate without



their animals. For life safety reasons, other residents who were already outside the affected area when the fire started were not allowed to return to their property to collect their animals. These conditions created the need for a robust and very capable animal care and control aspect of the overall response and recovery effort. The Camp Fire will forever be marked by the level of care, coordination, and commitment response personnel poured into the health, safety, and wellbeing of animals. As with other aspects of the operation, the animal care and control mission was very complex and was met with a variety of challenges, including State coordination, convergent volunteers, public information and resource challenges, all of which necessitated innovative strategies and tactics and required decisiveness in the midst of great uncertainty.

## Strengths

### **Finding 1: There was a great deal of collaboration across many entities with a singular aim, to protect the wellbeing of disaster-affected animals.**

It was underscored during stakeholder interviews that the overall success of the animal care and control mission was attributed to the overwhelming level of support received from other jurisdictions, outside agencies, and previously established response partners. Many of Butte County's animal control staff and trained volunteers were personally affected by the Camp Fire and, therefore, were not able to respond. Through mutual aid, over 50 agencies provided staffing support and commodity resources to assist with animal search and rescue efforts, volunteer coordination, and veterinary care to include support from the International Fund for Animal Welfare and the California Veterinary Medical Reserve Corps.<sup>32</sup> Spontaneous and unaffiliated volunteers received just-in-time training, folded into the command structure, and served tirelessly and selflessly.



*A goat being sheltered during the Camp Fire. Source: Butte County Staff.*

It was further highlighted that the North Valley Animal Disaster Group (NVADG) was an invaluable asset to the mission. Butte County, in recent years, determined that NVADG could help fill gaps in animal response, as the group had increased its volunteer training requirements to further professionalize and more seamlessly integrate into a larger response infrastructure. During the Camp Fire, NVADG brought animal control vehicles as well as trained personnel who are equipped to go in front of the fire line to rescue animals.

Approximately 4,000 animals were separated from their owners during the Camp Fire. Through this multi-agency collaboration, 3,675 animals were successfully reunited with their owners. The

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<sup>32</sup> US Army. "Calif. Guard MPs help Paradise pets, volunteers in shelter," US Army (Nov 2018), [https://www.army.mil/article/214058/calif\\_guard\\_mps\\_help\\_paradise\\_pets\\_volunteers\\_in\\_shelter](https://www.army.mil/article/214058/calif_guard_mps_help_paradise_pets_volunteers_in_shelter)



325 that were not reunited were carefully placed with no-kill animal rescue groups and adoption clinics.<sup>33</sup>

**Finding 2: Integrating the National Guard within the animal care and control mission proved successful.**

During the evacuations, in some instances where animals were protected from the effects of the fire, it was deemed safer and less traumatic to keep them secured in a familiar setting: their owner's property. A major staffing gap was created about 2 weeks into the response when a voluntary animal control organization abruptly pulled out of the operation. The National Guard immediately filled the gap by assuming the role of conducting routine wellness checks, providing food, and caring for those animals that were sheltered-in-place. This innovative application of National Guard resources helped sustain animal wellbeing and reduced a major staffing burden.



*National Guard hauling hay for animal sheltering operations. Source: Butte County Staff.*

**Areas for Improvement**

**Finding 1: Roles and working relationships between County, Regional, and State animal control personnel were unclear.**

The State of California activated, in accordance with SEMS, the Region Emergency Operations Center (REOC) and the SOC for this disaster. The SOC established a multi-agency Animal Task Force. The Animal Task force was staffed by the California Department of Food and Agriculture as well as other staff from the SOC. It was recognized during stakeholder interviews that SEMS was not being honored because the SEMS requirement of regional coordination and support was bypassed by the SOC, and the SEMS mutual aid principle of local officials remaining in charge was not fully supported. Due to the close proximity, the SOC supported Butte County's animal control personnel, bypassing the REOC. There was a lack of familiarity and trust between the County and the State. Requests for resources to the State were followed by multiple field assessments to validate the need. Staff sent to assist animal care and control came either unable to perform the requested function or with State instructions that differed from local needs. In addition, the reporting and supervision roles of State staff were often confused. At times, it seemed as if the SOC was trying to run the Operational Area, local, and field level operations from afar, which made the situation very difficult.

**Finding 2: Untrained and uncredentialed volunteer groups complicated the animal care and control mission.**

It was underscored during stakeholder interviews that volunteer groups who recruited and managed their own spontaneous volunteers were more detrimental than they were helpful to the overall animal care and control mission. Many of the volunteers associated with these groups were

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<sup>33</sup> Stakeholder interviews.



unvetted, untrained, and did not have proper personal protective equipment (PPE). The County established safe areas just outside the fire lines where credentialed personnel would bring animals for these volunteer groups to tend to. Because the County was so understaffed, it was forced to integrate more of these volunteers into normal mission functions by creating teams that were led by trained personnel. This approach worked well for a few days. As the volunteer groups continued to recruit and onboard more unvetted and untrained spontaneous volunteers, the ability to ensure that each team was led by trained personnel was near impossible. The new teams operated outside of the scope of practice and adopted unauthorized practices such as kicking in doors of private property and committing thefts.

**Finding 3: There is a need for better guidance from the State and the County Counsel regarding animal sheltering after evacuations are lifted.**

It was identified during stakeholder interviews that there was an observed gap in legal authorities and a lack of guidance pertaining to animal care at the point at which evacuations were lifted. In Paradise, once the evacuations were lifted, the County no longer had authority and had to return all responsibilities to the Town.

They began to enforce the local standard which states that, if an animal is picked up, they are to be housed for 30 days. Butte County animal control held the animals for 60 days, sometimes 90 days, and some animal activist groups still expressed dissatisfaction because of the effects this process had on animals' behavioral and mental health.

**Finding 4: At the outset of the Camp Fire response, there was a gap in including pertinent animal care and control information in public messaging.**

Many animal owners have deep emotional ties to their pets and livestock. In part, community members and public onlookers derive their perception on how the response is being handled by the ways in which the most vulnerable populations, including animals, are being cared for. During disaster response and recovery, providing rapid and accurate public information pertaining to animal wellbeing is a vital function to maintaining community trust and mitigating the development of harmful misinformation.



*Donations for animals. Source: Butte County Staff.*

It was highlighted during stakeholder interviews that there was a lack of animal-specific public information during the early phases of the Camp Fire response. The public was regularly exposed to stories of alleged animal abandonment and mishandling but was not made aware of the County's animal care and control success. As a result, rumors and misinformation began to spread which distracted staff from carrying out their operational tasks, damaged public perception, and contributed to difficulties in controlling and coordinating convergent volunteers. Eventually, the County began to provide animal-specific messaging through the JIC, but it was not sufficient enough to fully reverse the negative impact the lack of information had already made.





## Recommendations

### Strengths

Recommendation 1: Butte County, in coordination with the appropriate leaders at the Operational Area and Regional levels, should continue to advocate with State partner organizations and groups for them to establish a single repository of California-based animal control mutual aid resources that can be called upon in support of disaster preparedness, response, recovery, and mitigation activities. This should also include a baseline standard for vetting, training, and credentialing staff and affiliated volunteers within this mutual aid system.

### Areas for Improvement

Recommendation 1: Butte County OEM and Public Health should work together to spearhead a process through which key animal control personnel and relevant stakeholders regularly exercise SEMS-compliant plans, processes, and procedures to ensure efficient support of Operational Area and Local animal control and welfare response and recovery. This may include requesting that the State lead large-scale efforts to exercise animal care and control mutual aid.

Recommendation 2a: BCSO, OEM, and BCPHD should discuss the challenges and lessons learned from the Camp Fire relative to animal control volunteer groups and convergent volunteers for the purpose of identifying baseline and just-in-time training, credentialing, and volunteer conduct requirements for future participation from such groups and convergent volunteers. Additionally, develop plans, processes, procedures, training, and exercises to ensure effective integration of volunteer groups and convergent volunteers into response and recovery operations.

Recommendation 2b: Butte County should publish and proactively engage such volunteer groups to share the baseline training, credentialing, and volunteer conduct requirements.

Recommendation 3: OEM and BCPHD should engage Butte County Counsel to discuss the current gaps in legal authorities related to animal care when evacuation orders are lifted and devise a strategy to mitigate the gap in consideration of local and state regulations.

Recommendation 4: Butte County should develop plans and procedures to ensure animal control is engaged during JIC activations to ensure rapid and accurate dissemination of animal control public information and guidance. Further, the County should regularly integrate the testing of these plans and procedures into exercise activities.

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## Resource Management

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### Summary

The Camp Fire response and recovery efforts quickly exhausted the County's resource capacity which necessitated the procurement, assigning, management, and tracking of an array of resources including personnel, equipment, and material. Resources were obtained through direct





assistance from neighboring jurisdictions and through the EMMA request process. It is understood that the Camp Fire’s catastrophic conditions would have quickly overwhelmed any jurisdiction, regardless of its pre-incident preparedness efforts. Still, amidst a wide range of insurmountable challenges, Butte County logistics personnel exhibited remarkable tenacity and creativity as they worked to support the Camp Fire response and recovery efforts.

## Strengths

### **Finding 1: Butte County, working in concert with Cal OES and other outside agencies, was generally successful in procuring the necessary resources.**

The EOC Logistics Section, staffed by the General Services Department (GSD), was able to immediately begin assessing resource needs and procuring resources directly from neighboring jurisdictions even though the situation was chaotic, and the needs were overwhelming. It was noted during stakeholder interviews that the GSD had conducted prior training and was experienced in dealing with previous incidents that enabled them to maintain internal coordination and communication and function efficiently in the face of an unprecedented disaster. The Sheriff was able to immediately procure law enforcement assistance from neighboring jurisdictions. It was also highlighted during stakeholder interviews that Shasta County and Cal State University Chico provided assistance in procuring resources on behalf of the County during the response phase. Cal OES staff also provided invaluable assistance with their knowledge of mutual aid processes and access to resource databases.

### **Finding 2: Use of the Mutual Aid System was critical in obtaining resources.**

As the fire spread rapidly across the County, it became apparent that many of the local vendors were also devastated by the Camp Fire and would not be able to provide customary resource support, services, and supplies to the County. Proactively, the County activated the mutual aid request process and, with the support of Cal OES, leveraged it to procure critical resources that were depleted locally. In addition, the County used the system to request Incident Management Team (IMT) staffing support to augment and backfill key EOC positions.

### **Finding 3: Throughout the response, strategies changed but the team’s collective focus on overarching objectives remained consistent.**

It was expressed during stakeholder interviews that, the Logistics team’s biggest challenge during the Camp Fire response was maintaining priority order regarding the tasks that needed to be accomplished next. It was also highlighted that, in the midst of almost constant change, the Logistics Section remained calm and stayed flexible in order to keep a clear view of the most pressing incident needs and identify creative ways to meet those needs. Team members encouraged and supported one another by asking “What’s screaming at you?” and “What can I do for you now?”<sup>34</sup> It

#### **Partner Thoughts**

“It was all hands on deck and people doing what they had to do to get it done.”

~ Benjamin Matray,  
Butte County  
General Services  
Department

<sup>34</sup> Stakeholder interviews.



should be noted that the camaraderie, poise, and operational focus the team exhibited was not happenstance, but a direct result of preparedness efforts accomplished through monthly Logistics Meetings.

## Areas for Improvement

### **Finding 1: The resource management process was significantly hindered by the loss of network connectivity.**

When the County's network failed and all normal resource management systems and processes were lost, the Logistics team implemented temporary, work-around solutions in an effort to maintain operational continuity. It was expressed during stakeholder interviews that staff were taking pictures of documents using their cell phones and then texting them to each other. While this innovation is recognized as positive, it should be noted that the County does not have a process in place to serve as a tech-light backup to the normal resource management system.

### **Finding 2: There was not an adequate system in place to manage the large volume of donated equipment and supplies.**

One of the many strengths exhibited by the community surrounding Butte County during the Camp Fire was the outpouring of generosity in the form of donations. While these donations were offered with the intent of supporting disaster survivors, the County did not have a sufficient system nor the staffing in place to adequately manage the receipt, storage, and dissemination of the donated goods it received.

## Recommendations

### **Strengths**

Recommendation 1: Butte County GSD should identify and train back up staff who can support the resource management function in response to large-scale, complex, multi-operational period incidents.

Recommendation 2: Butte County GSD should spearhead a process in coordination with Cal OES and key partner agencies to document resource management best practices from the Camp Fire response and incorporate them into all applicable procedural documents and training materials.

Recommendation 3: Butte County GSD should continue to host its Monthly Logistics Meetings to avail frequent training opportunities for staff assigned to the EOC Logistics Section.

### **Areas for Improvement**

Recommendation 1: Butte County GSD should devise a back-up system and process for maintaining continuity of the resource management function when the County is faced with a network failure to include loss of internet and email capabilities. Further, GSD should incorporate the back-up system and process into regular training and exercise opportunities to ensure all pertinent staff are equipped to execute.

Recommendation 2: Butte County OEM should establish and document systems and procedures for managing and tracking donated resources, including training donations management staff.



## Volunteer Management

### Summary

Many of the strengths that are hallmarks of Butte County are demonstrated with the examination of volunteer management. Coordination across agencies, the ability to be agile in response to a dynamic situation, early and frequent communications with the public, and, most notable for this section, the incredible outpouring of community support. Bar none, the biggest strength under volunteer management is the sheer volume of people who so willingly offered their time, expertise, and resources to support those affected by the fire. An estimated 6,000 volunteers supported the numerous response and early recovery activities that arose from the Camp Fire. Many of the issues that were identified regarding volunteer management stemmed from the sheer volume of volunteers that came forward and, even to that end, many solutions were quickly put in place to manage the surge of volunteers as best as possible given the resources and circumstances available at the time.

### Strengths

#### **Finding 1: Thousands of people came forward to volunteer in service of the community.**

Butte County and its surrounding areas are fortunate in that there has been a consistent forward-leaning posture by community members to volunteer their time during disasters. The Camp Fire, in particular, demonstrates this commitment with the sheer volume of volunteers who provided their services to include government workers, people from NGOs, and spontaneous or unaffiliated volunteers (SUVs). It has been estimated that some 6,000 individuals came forward to volunteer to help the response;<sup>35</sup> countless more continue to help as recovery activities press on.



*Staff and volunteers assisting with donated goods.  
Source: Butte County staff.*

#### **Finding 2: Butte County had an MOU in place with an organization to handle volunteer management.**

Caring Choices, which is part of the State of California Volunteer Matching Network, was provided with funding from California Volunteers to develop, recruit, and train “cadres” of volunteers specifically for the Butte County area and to expand the capacity to set up emergency volunteer centers (EVCs), which is substantiated via an MOU between Butte County and Caring Choices. Caring Choices was selected to facilitate the integration of SUVs to help with things like debris

<sup>35</sup> Stakeholder interviews.



removal, moving sandbags, assisting with clean-up, serving as message runners, answering phones, performing other basic office work (clerical, data entry, and filing), serving clients directly (e.g., with food, shelter, comfort, interviewing volunteers, providing interpretation/translation support), helping assess damage, and caring for lost (and not yet reunited) pets.<sup>36</sup>

**Finding 3: Volunteer management, to include activation of the EVC, was integrated by day one of the incident.**

At its fastest, the Camp Fire spread at more than a football field per second, and it burned through 20,000 acres in less than 14 hours on day one.<sup>37</sup> From the first hours of the incident, it was clear to Butte County that the circumstances of this fire would necessitate swift and decisive actions. Volunteer management was no exception to this posture. By 12:28 PM of day one, the County announced the following, “an EVC is open at Caring Choices, 1398 Ridgewood in Chico. People interested in volunteering can go there or call 530-899-3873.” By 12:45 PM, Caring Choices followed suit with the following announcement: “[the EVC] has been activated...[and] is accepting applications for interested volunteers.” The immediacy with which the EVC was established supported the integration of volunteers during the early stages of the response, which helped to bridge gaps in staffing areas in a time of great need.

**Finding 4: The Volunteer Management function was agile in supporting the evolving needs of the incident.**

The announcement about the first EVC being activated in Chico was made within 6 hours of the first call received to Butte County dispatch about the fire. Within 8 hours, and as more volunteers expressed interest, a subsequent announcement was made that a second EVC would be activated in Oroville at the Southside Community Center to process volunteers starting at 9:30 AM the following day (day two) along with information about what to bring to the site and what to wear (e.g., bring government identification and wear closed toed shoes). However, the dynamic and volatile nature of the fire and weather conditions resulted in a decision to close the Oroville site by day four. The County and its partners also exhibited agility by issuing requests for specific types of volunteers that explained the types of workers that were needed. For example, on day one at 8:18 PM, a request was made for “MD, RN, LVN, EMT, MFT, LCSW and all other clinical and medical volunteers.” Another call was issued on day two for support with caring for animals that advised volunteers should “wear closed toed shoes and long pants...[you] will be helping set up/clean cages, walk animals, etc.” The ability to remain fluid and agile to respond to the constantly changing needs of the incident served as a tremendous asset to the overall response picture.

**Finding 5: Information was regularly pushed out regarding volunteer management.**

There were many instances during the response in which Butte County displayed a distinctly forward-leaning posture and cohesiveness across agencies. Communication about volunteer

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<sup>36</sup> Butte County Office of Emergency Management. *Emergency Operations Plan*. Oroville: Butte County Board of Supervisors, 2011.

<sup>37</sup> Judson Jones, “One of the California Wildfires Grew So Fast it Burned the Equivalent of a Football Field Every Second.” *CNN News* (Nov 2018), <https://www.cnn.com/2018/11/09/us/california-wildfires-superlatives-wcx/index.html>





needs was another strong example of that, as a myriad of messages were released across press releases, tweets, and websites spanning NGO partners, BCPHD, OEM, and BCSO. For example, a press release issued on day three by NGO partners indicated EVC operating hours, types of volunteers needed, likely assignments, and a call to use the online application process. Across Twitter accounts for the County, the BCSO, and Caring Choices, 5 tweets resulting in 384 retweets were issued on day one alone regarding volunteers.

**Finding 6: An online form was created for volunteers to complete.**

The speed with which the Camp Fire was moving necessitated a number of “firsts” and pushed the County and their partners to implement practices that they may have only theorized or categorized as longer-term preparedness goals. One such example was the creation of online forms for volunteers. Prior to the Camp Fire, an online submission form was not yet available for volunteers to use. Through the first few days of response, volunteers were encouraged to go to EVCs to initiate the process of becoming registered, vetted, and assigned. Given the volume of volunteers, coupled with the number of roads that were closed or congested, a need arose to make this initial step in the process virtual, and an online form was created and publicized for use by members of the community interested in volunteering.

**TAKING VOLUNTEER REGISTRATION ONLINE**

An estimated 6,000 volunteers supported the response and early recovery activities that rose from the Camp Fire. This high volume of volunteers necessitated a number of “firsts”. One such example was the creation of online forms for volunteers to register instead of having to drive to an EVC to do so. This remote registration process helped to reduce the number of people on the roads and create efficiencies in the volunteer registration and assignment process.

**Finding 7: Policies are in place that enabled State government staff to volunteer for fire relief work.**

The State of California, through California Department of Human Resources (CalHR), granted the authorization of Administrative Time Off for up to 5,000 permanent state employees who wanted to volunteer for fire relief work in Butte County. Limited to 40 hours for eligible employees, the program was executed through the County’s EVC partner and included the creation of a webpage accessible only to state employees who wished to volunteer. The webpage contained links to available volunteer opportunities that included the job description, the number of volunteers needed, and any special job requirements. Employees who wished to volunteer beyond the 40 hours of Administrative Time Off, could do so using their own leave credits.<sup>38</sup>

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<sup>38</sup> California Department of Human Resources, *Volunteer Relieve Leave Program*. CalHR, 2018





**Finding 8: Partnerships that were leveraged to help with volunteer management created efficiencies.**

A partnership with Hands On Sacramento, a volunteer organization, enabled the County to gain access to additional volunteer staff and assistance with the vetting process. This provided an opportunity to reduce foot traffic in the EVC, enabled the County to directly deploy staff to where they were needed, and gave the County access to another mechanism to recruit volunteer staff from outside areas not affected by the Camp Fire.

**Finding 9: Digitizing Disaster Service Workers (DSW) Forms helped to streamline operations.**

The County utilized their existing practice of engaging notaries as agents for the County to verify DSW forms, which were essential to provide workers compensation for the spontaneous volunteers. In addition, iPads were used to completely vet a volunteer. Towards the end of the event, they started to have each spontaneous volunteer take a picture with their smart phone of their signed and approved DSW form. Overall, volunteer sign-up, vetting, and tracking was streamlined through this process, making the system more efficient.

**Areas for Improvement**

**Finding 1: Tenets of the MOU for volunteer management were not followed.**

The SUV program for Butte County was managed through an NGO at the time of the Camp Fire. A pre-established MOU was in place outlining the NGO's commitment to manage the EVC and to vet SUVs. Due to the significant surge of people volunteering, previously agreed upon practices for recruiting, vetting, and deploying volunteers were not adhered to consistently, which led to misalignments with volunteer assignments and liability exposure for the County.

**Finding 2: The processes in place at the time of the fire could not readily manage the breadth of people offering to volunteer.**

The first 12 days of the response were marked with multiple messages being released to call for volunteers, to include requests for volunteers with specific skillsets or training. On day 13, the messaging shifted to requesting the public not to volunteer, then by day 18, the messaging resumed to the original posture of calling for volunteers. On day six, there was a message released from Caring Choices that read "... Please do not email, call, or message us. The volume of calls, emails, and messages we are currently receiving right now is immense.... we are asking for patience and understanding while we continue to process applicants." During this time, there were a number of gaps in the volunteer management process to include volunteers not completing forms, waivers, or the process of being sworn in. Additionally, there were missed opportunities to receive, vet, and, when appropriate, redeploy volunteers to areas of need.

**Finding 3: There were gaps in documentation regarding volunteer management at the EOC.**

A close review of EAPs from days one - 14 of the incident, alongside accompanying EOC documentation such as resource requests and IAPs, reveals very little about the oversight and management of the volunteer function at the County EOC. The closest mention of it in EAPs is "Emergency Worker Support" listed as a Logistics Section objective starting on day two and



staffing of the Care and Shelter Branch Director position. Public-facing documentation, to include press releases and references on social media discuss volunteers, however. Other than references in the County EOP, there were few other internal reports that discussed volunteer management or the EVCs. This gap in documentation is indicative of the County not having a strong structure in place to oversee, guide, and when called for, realign issues that may arise.

**Finding 4: Volunteers were arriving at shelters instead of going to the EVC first for screening and assignment.**

A comment was released from Caring Choices indicating that there has been a “persistent threat of misunderstanding the volunteer process” and that this misunderstanding was detracting resources from the pressing needs of the survivors. It was further clarified that volunteers were not authorized to go to an evacuation center or animal shelter unless they had completed the volunteer deployment process.<sup>39</sup>

## Recommendations

### Strengths

Recommendation 1: Butte County OEM, in coordination with volunteer management partners, should ensure that systems and processes are in place to handle a significant surge of volunteers, by examining outcomes from the Camp Fire, re-establishing or revising any MOUs as needed, and seeking to build EVC management capabilities with partners.

Recommendation 3: Butte County OEM should revise the County EOP to delineate the notification and activation process between OEM and EVC partners.

Recommendation 6: Butte County OEM, along with volunteer management partners, should re-examine the online volunteer intake form and make revisions based on findings from the Camp Fire.

Recommendation 7: Butte County OEM should continue to advocate that the State ensures that similar programs are readily available with volunteer partners for future incidents.

Recommendation 9: Butte County OEM should review DSW processing strategies that were leveraged and ready them for immediate use in future incidents by documenting processes and folding them into an overarching training and exercise strategy.

### Areas for Improvement

Recommendation 1: Butte County OEM, in coordination with GSD, DPH, and BCSO should revisit the strategy for volunteer management overall, create a working group of partners, and develop a

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<sup>39</sup> CBS Sacramento, “Officials: Camp Fire Volunteers Can’t Just Show Up at Shelters, Must Complete Volunteer Process,” (Nov 2018), <https://sacramento.cbslocal.com/2018/11/19/camp-fire-volunteer-process/>



Butte County Spontaneous Volunteer Management Plan and/or Annex to the EOP and incorporate these findings from the Camp Fire.

Recommendation 2: Butte County OEM, in coordination with GSD, DPH, and BCSO should ensure the Spontaneous Volunteer Management Plan identifies multiple strategies that are flexible enough to scale up or down depending on the size of the incident to allow for a more robust and accurate system.

Recommendation 3: The new Spontaneous Volunteer Management Plan and/or Annex to the EOP should identify specific documentation and form requirements for EVCs, badging/credentialing, and volunteer tracking.

Recommendation 4: Butte County OEM, in coordination with any future entities charged with coordinating volunteers, should ensure that messaging regarding the volunteer deployment process is clear and persistent across multiple mediums.

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## Remains Recovery & Search and Rescue

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### Summary

The search and rescue efforts surrounding the Camp Fire have been deemed the largest search and rescue operations in California State history, with body recovery operations deemed one of the largest in the United States since the 9/11 terrorist attacks<sup>40</sup>. Despite the scale and severity of the search and rescue and remains recovery operations, the county implemented a process which facilitated the successful discovery, collection, and identification of remains.



*Search and rescue operations. Source: Butte County Sheriff Search and Rescue Facebook page.*

An integrated yet layered approach to search and rescue and an innovative process for remains recovery were instituted, which were highly dependent upon mutual aid partners. Support provided through these entities was critical in successfully accomplishing mission objectives. The Camp Fire was the first time that law enforcement, fire, coroner's, National Guard, and search and rescue

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<sup>40</sup> Tim Craig, "Camp Fire's destruction in Northern California leaves rescue teams sifting through debris and human remains," *The Washington Post* (Nov 2018), <http://www.washingtonpost.com/national/camp-fires-destruction-in-northern-california-leaves-rescue-teams-sifting-through-debris-for-human-remains/>



responded together in a Unified Command<sup>41</sup>. Best practices from other recent fires were extrapolated to the Camp Fire response through the experience of these seasoned mutual aid personnel.

## Strengths

### **Finding 1: Resources acquired through mutual aid and pre-established relationships with neighboring jurisdictions and partner agencies effectively supplemented resource gaps.**

The county immediately knew that they would be overwhelmed trying to coordinate and execute search and rescue and remains recovery operations. In what has been called the largest search and rescue mutual aid request in state history, the county relied on mutual aid partners to accomplish the massive search and rescue effort. 54 of 58 counties within California sent search and rescue resources to support the operation<sup>42</sup>. Both urban and traditional search and rescue teams from all over California assisted in the response, which was supported by highly trained and dedicated search and rescue volunteers.

Without a morgue capable of handling an incident of this magnitude, and because of pre-established relationships and agreements, Sacramento County Coroner's Office offered to assist with coroner-related operations, helping to lessen this burden on the County. Additionally, OES Assistant Chiefs for search and rescue, coroners, and law enforcement all responded to the incident. With these officials facilitating resource management and coordination functions, a huge burden was taken off of local responders. Ultimately, mutual aid and pre-established relationships allowed the County to effectively fill resource gaps and match response operations with the scale and severity of the fire.

### **Finding 2: The integrated, multi-layered approach to search and rescue and remains recovery proved successful once established.**

While initially the structures in place to carry out search and rescue and remains recovery operations were insufficient, the County quickly identified the need for an improved process, developing an integrated and layered approach that met incident needs. Initially, Cal OES, on behalf of BCSO, put in a mutual aid request for coroner's investigators. However, this process

### **The Search and Rescue Screening Process**

"All of those locations where we had information to believe there would be human remains have been searched. In addition to that, all locations where we felt there was a higher probability there would be human remains have been searched. And finally, all structures where there is the possibility of there being human remains have been searched."

~ Sheriff Honea,  
Butte County  
Sheriff's Office

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<sup>41</sup> Jeff Bowles and Rick Kovar. "MRA Webinar Series – Butte County 'Camp' Fire Search and Rescue Mutual Aid Response November 2018." YouTube, uploaded by pmripoe, Jul 2019  
<http://www.youtube.com/watch?v=FENLjE0eZWo>

<sup>42</sup> Jeff Bowles and Rick Kovar





only worked for intact corpses and could not be accomplished in a timely manner, as every property had to first be searched.

To accommodate this challenge, mutual aid was utilized to acquire both traditional search and rescue teams, urban search and rescue teams, and forensic anthropologists to supplement the roles of the coroner's investigators. The innovative practice of integrating search and rescue and urban search and rescue teams into multi-disciplinary groups was identified as a major operational strength. CAL FIRE would clear buildings and mobile homes to ensure it was safe for search and rescue to enter facilities, and then search and rescue would conduct searches and locate remains. Anthropologists would then determine if the remains were human or animal and collect remains accordingly. Coroner's investigators would then take possession of the remains and carry out documentation functions and identification procedures.



*Search and rescue personnel with a cadaver dog.  
Source: Butte County Sheriff Search and Rescue  
Facebook page.*

**Finding 3: The screening process for determining the level of search and rescue performed was efficient.**

Search and rescue operations were performed at different levels of care based on intelligence surrounding potential locations of remains. This helped to expedite search and rescue efforts. For example, if a vehicle was left in the driveway of a burned down structure, this facilitated a heightened level of care. Additionally, if a residence on the missing persons list had burnt down, this also facilitated a heightened level of search and rescue. Multiple factors necessitated the need for more intensive search operations. BCSO determined the probability that remains were located at a site and based the level of search and rescue operations off of this determination. With 10,000 people having searched 18,000 structures, an efficient method for operating was necessary<sup>43</sup>. This targeted and evidence-based approach to search and rescue was efficient and successfully provided a framework that met the incident needs.

**Finding 4: County volunteers added value to search and rescue operations.**

The BCSO's Search and Rescue Team's participation in the response added significant value to search and rescue operations. The team's participation in the Camp Fire began shortly after the fire was reported and spanned the response and recovery phases, where they first assisted with the evacuation of Pulga and Feather River Hospital and later with search and rescue efforts and debris removal<sup>44</sup>. These local, highly trained volunteers committed man-hours and k9 teams to support the response. The BCSO's Search and Rescue Team also assisted with coordinating

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<sup>43</sup> Alan Marsden, "Sheriff Says 18,00 Structures Have Been Searched in Camp Fire Areas," *Action News Now* (Nov 2018), <http://www.actionnewsnow.com/content/news/Sheriff-says-search-for-human-remains-in-Camp-Fire-complete-501512571.html>

<sup>44</sup> Butte County Search and Rescue; CAMP FIRE." *GoFundMe*, <http://www.gofundme.com/f/butte-county-search-and-rescue-CAMP-FIRE>





additional search and rescue volunteers, with requests for other county search and rescue team affiliated volunteers through the Cal OES mutual aid system<sup>45</sup>.

**Finding 5: The Integration of the California National Guard into the response was a success.**

The California National Guard provided support to response operations, which was commonly identified as a major strength. The National Guard's access to resources was a major value add. The National Guard's support included providing ground searchers for search and rescue operations, leading decontamination following every search and rescue shift, providing heavy equipment to tear down structures, supporting logistics and managing the issuance of supplies, providing GPS and tracking capability to maintain better situational awareness of teams in the field<sup>46</sup>, and providing military police for traffic control points.

**Finding 6: The process established for handling and identifying remains once they were located was a success.**

Once remains were recovered, the process implemented for documentation, collection and later, identification was successful. Osteologists would document critical information such as the location of the remains and characteristics of the fire and surrounding environment which could provide greater insight into the location of other related remains<sup>47</sup>. Anthropologists would then perform collection efforts because of their experience being meticulous with human remains, which were stored in five-gallon buckets. Next, coroner's investigators would process remains and perform identification through a number of mechanisms. The Sheriff's Posse building was used as a temporary morgue due to its geographic location away from the public. Remains would be stored at the Posse building and then at the conclusion of the day, all remains would be transported together to Sacramento. It was a challenge to transport remains, but Sacramento provided a refrigerated vehicle to assist the process and transporting the remains all at once at the conclusion of the day reduced the transportation burden.

**Finding 7: Rapid DNA Technology was a major asset in the timely identification of remains.**

The approach to identifying remains proved successful. Because of the varied state of remains, multiple means were used for identification. First relying on more traditional mechanisms, including fingerprints, examination for medical hardware, and forensic dentistry, Butte quickly realized that an alternative process for remains identification was required. For one, many dentistry records were lost in the fire, and secondly, the normal process for identification took far too long given the number of identifications needed and the pressure from distressed family members. As of November 16, only three of 56 bodies had been identified<sup>48</sup>. However, the

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<sup>45</sup> Butte County Sheriff Search & Rescue." *Facebook*, <http://www.facebook.com/BCSAR/>

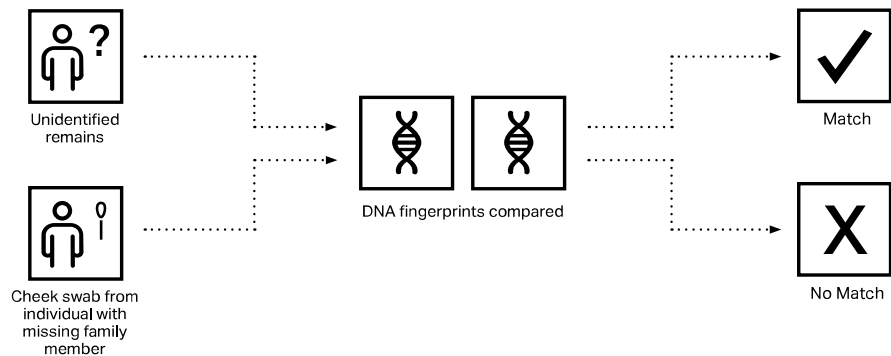
<sup>46</sup> Jeff Bowles and Rick Kovar. "MRA Webinar Series – Butte County 'Camp' Fire Search and Rescue Mutual Aid Response November 2018." YouTube, uploaded by pmripoe, Jul 2019  
<http://www.youtube.com/watch?v=FENLjE0eZW0>

<sup>47</sup> Sam Gross and Elizabeth Weise, "The long, hard process of identifying the dead in California's deadliest wildfire," *USA Today* (Nov 2018) <http://www.usatoday.com/story/news/2018/11/15/california-fire-long-hard-process-identifying-dead-underway/2006860002/>

<sup>48</sup> Sam Gross and Elizabeth Weise



integration of rapid DNA technology into identification efforts greatly improved the efficiency of the remains identification process, as it provided identifying information in less than two hours when other methods of identification failed to produce results<sup>49</sup>. Family members from as far as Minnesota came and provided DNA samples to receive confirmation of the status of their relative<sup>50</sup>. 85% of Camp Fire victims were positively identified through rapid DNA technology and only two of the deceased remained unidentified as of February 7, 2019<sup>51</sup>.



*Rapid DNA Technology Process. Source: Campfirerapiddna.com*

**Finding 8: Law Enforcement was able to tap into CAL FIRE funding.**

The Camp Fire was the first time that law enforcement was able to tap into CAL FIRE 09 funding, which helped sustain volunteer and search and rescue operations. Funding helped support three large incident base camps, which had housing, laundry facilities, cafeterias, and other necessary resources for the proper care and feeding of responders and volunteers. The Cal OES Assistant Chief involvement in operations helped facilitate this extrapolation of fire funding to a law enforcement-led incident. The base camps were an important hub for the incident, as it hosted logistical and administrative components of the response, served as a central location for operational briefings, and ensured proper care and feeding of responders. Base camp operations cost around \$1.5 million per day<sup>52</sup>, and without funding from the CAL FIRE 09 Fund, base camp operations would have been difficult to sustain.

<sup>49</sup> Department of Homeland Security. “Snapshot: S&T’s Rapid DNA Technology Identified Victims of California Wildfire,” DHS (Apr 2019), <https://www.dhs.gov/science-and-technology/news/2019/04/23/snapshot-st-rapid-dna-technology-identified-victims>

<sup>50</sup> Sam Stanton and Alexandra Yoon-Hendricks, “‘This is not normal.’ To identify Camp Fire remains, Sacramento coroner faces around-the-clock challenge,” *The Sacramento Bee* (Nov 15), <https://www.sacbee.com/news/california/fires/article221718355.html>

<sup>51</sup> Department of Homeland Security. “Snapshot: S&T’s Rapid DNA Technology Identified Victims of California Wildfire,” DHS (Apr 2019), <https://www.dhs.gov/science-and-technology/news/2019/04/23/snapshot-st-rapid-dna-technology-identified-victims>

<sup>52</sup> David Minsky, “Camped out: Wildfire base camps in California are multi-million dollar logistical operation,” *Santa Maria Sun* (Aug 2016), <http://www.santamariasun.com/news/15062/camped-out-wildfire-base-camps-in-california-are-multimillion-dollar-logistical-operations/>



## Areas for Improvement

### **Finding 1: Care and feeding of responders and volunteers was initially difficult to support.**

Initially, care and feeding for responders and volunteers was difficult to prioritize and implement. Because of the fast-paced nature of the incident and the scale of the disaster, immediate response focused solely on getting a handle on the incident; this initially took precedent over responder's wellness. Volunteers, mutual aid partners, and County staff showed unwavering dedication to the response, some spending weeks living out of their cars and operating in facilities never intended to host crisis response operations. This speaks to the culture of the County and those who support it, as responders continued in their commitment to the response despite suboptimal living conditions. A base camp was set up, but the scale needed to accommodate the massive response operations and effectively support responders took some time to establish.

### **Finding 2: Public information efforts surrounding fatalities in general and the identification of recovered remains were difficult to manage due to the sensitivity associated with such operations.**

The first press release acknowledging fatalities was released by the BCSO on November 9. The press release emphasized the difficulty of confirming fatalities at this stage in the incident due to the still active nature of the fire and the hazards associated with the burn area. Throughout the response, numbers for fatalities fluctuated as responders assessed the gravity of the situation. This posed challenges for public information efforts because of the sensitive nature of the topic. Identification of remains further complicated this effort, as the press release recognized the challenge of identification due to burn injuries<sup>53</sup>. Initially, remains identification was a prolonged process. This complicated public information efforts as families, friends, and concerned community members desired timely answers as to the status of missing companions.

### **Finding 3: Decontamination best practices following search and rescue operations were not well known.**

While the decontamination process overall was hugely successful, as the scale of the operations matched the need of the response, responders were unaware of the decontamination best practices necessary to ensure responder health and safety or did not have the resources to ensure full decontamination. For example, while personnel were successfully decontaminated throughout the duration of the incident through the National Guard's efforts, vehicles and equipment did not receive the same level of care. Patrol vehicles, for instance, were exposed to toxic ash through responder use, yet measures were not in place to decontaminate these resources<sup>54</sup>.

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<sup>53</sup> Butte County Sheriff's Office, *BCSO Press Releases sent during the Camp Fire 11/9/18 -12/16/18*. Butte County, 2018

<sup>54</sup> Jeff Bowles and Rick Kovar. "MRA Webinar Series – Butte County 'Camp' Fire Search and Rescue Mutual Aid Response November 2018." YouTube, uploaded by pmripoe, Jul 2019  
<http://www.youtube.com/watch?v=FENLjE0eZWo>



## Recommendations

### Strengths

Recommendation 1a: Continue to strengthen mutual aid partnerships and relationships with neighboring jurisdictions to maintain the scalability of capability seen during the Camp Fire response.

Recommendation 1b: Implement the practice of integrating Cal OES Assistant Chiefs into operations in future incidents if possible.

Recommendation 2a: Document the integrated approach to search and rescue and remains recovery for incidents of this scale, implementing best practices learned from the Camp Fire operations.

Recommendation 2b: Train on the integration of search and rescue, urban search and rescue, anthropologists, and coroner's investigators to further optimize the process.

Recommendation 2c: Socialize this best practice with other public safety personnel so they may benefit from the County's expertise and the practice can become more well known.

Recommendation 4: Continue to support BCSO Search and Rescue and capitalize on their expertise during response operations.

Recommendation 5: Maintain, strengthen, and exercise the County's relationship with the California National Guard to situate the County to easily and effectively leverage National Guard resources during emergency response.

Recommendation 6a: Document the process for handling remains once they have been discovered and grow the County's access to anthropologists, forensic pathologists, and others involved in the process of handling remains.

Recommendation 6b: Pre-establish the process for the transport of remains and assess available resources, within the county and in neighboring jurisdictions, to assist in this process.

Recommendation 7: Document the process for remains identification for incidents of this scale and maintain established relationships with technology providers developed through the Camp Fire.

Recommendation 8: Assess opportunities to tap into funding sources and lobby for additional law enforcement funding related to fire response.

### Areas for Improvement

Recommendation 1: Prioritize the establishment of a base camp as early as possible upon the recognition of an incident requiring sustained operations and integrate this into EOPs or develop a Base Camp Activation Plan.



Recommendation 2: Develop and/or update a Crisis Communications Plan to provide specific guidance on messaging surrounding fatalities and remains identification. Collaborate with the Coroner's Office on this.

Recommendation 3a: Train and exercise decontamination for search and rescue operations so that responder health and safety is further protected in future responses.

Recommendation 3b: Establish a process for the decontamination of resources and equipment to enhance the effectiveness of decontamination efforts.

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## Missing Persons

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### Summary

The scale of the incident resulted in an unprecedented number of people unaccounted for. So many were displaced from their homes that approximately 3,300-3,400 people were initially reported missing<sup>55</sup>. Thus, missing persons became a major priority in the response as BCSO took on the task of documenting, tracking, and investigating persons reported missing. Despite this massive effort, BCSO established an effective process that efficiently reduced the number of missing persons. Best practices from jurisdictions who have carried out missing persons operations of similar scope were adapted and implemented, and mutual aid partners added value to the response. Like search and rescue, the missing persons process was innovative, developed to meet the needs of an incident that overwhelmed pre-existing processes.

### Strengths

**Finding 1: The system which was created to track the status of missing persons was effective.**

BCSO developed a system for tracking missing persons that successfully fulfilled the needs of the incident. Multiple streams for receiving data concerning missing persons were created to include a missing person call center, email, and dispatchers themselves. Data collected was inputted into a data base which had critical information on the missing persons case, including the names of individuals and other investigative information. A unit dedicated solely to missing persons operations, which at its peak included 18 detectives,

### Press Release – November 9, 2018

“We understand that many people are very anxious to locate loved ones and we encourage residents to check [safeandwell.org](http://safeandwell.org), check with family and friends, and if you're still not able to locate loved ones, please contact BCSO at (530) 538-7322 to request a welfare check or to file a missing person's report.”

~ Butte County  
Sheriff's Office

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<sup>55</sup> Stakeholder Interviews.





*Missing Persons Call Center phone numbers.  
Source: Butte County Sheriff's Office Twitter.*

was created to manage and execute this massive effort<sup>56</sup>. Shelters were checked to see if residents were on the missing persons list and 9-1-1 calls from the start of the fire were even reviewed to deduce any useful information. Despite the challenges associated with such an extensive effort, BCSO was able to effectively confirm the whereabouts of all but one missing person.

### **Finding 2: Mutual aid partners proved of value in missing persons operations.**

Due to Sonoma County's experience with missing persons efforts following catastrophic fires, they assisted in establishing a framework for Butte County. Later on, Alameda County, who also had experience in managing missing persons operations, supported the County's efforts. This mentorship and support from mutual aid partners proved invaluable, as Butte County had never carried out missing persons operations at such a scale. The database implemented by Sonoma in previous fire responses was utilized as a template and was adapted to meet the needs of the County, and Alameda shared lessons learned from their missing persons experiences to further optimize the Butte County effort. However, it took BCSO four to five days to establish a process for tracking missing persons cases. It also took Sonoma County the same amount of time to establish a process following the Tubbs Fire. This process for Butte County could have been expedited if Sonoma was consulted earlier on during the response. Overall, mutual aid was critical in successfully carrying out missing persons operations.

### **Finding 3: Efforts to address the public's concern regarding missing loved ones were effectively implemented by the County.**

With so many missing persons, the public's distress surrounding the whereabouts of loved ones was immense. However, the county utilized tools and carried out public information efforts to help provide peace of mind. Safe and Well through the Red Cross was used to allow disaster victims to designate themselves as "Safe and Well" and to search for loved ones who may have also registered on the website. Additionally, daily updates were provided on the number of missing persons via press releases, which were shared on social media, and information on how to file a missing persons' case was provided via multiple outlets.

**Safe and Well**

After a disaster, letting your family and friends know that you are safe and well can bring your loved ones great peace of mind. This website is designed to help make that communication easier.

**Register Yourself as "Safe and Well"**  
Click on the "List Myself as Safe and Well" button to register yourself on the site.

**Search for Loved Ones**  
Concerned family and friends can search the list of those who have registered themselves as "safe and well" by clicking on the "Search Registrants" button. The results of a successful search will display a loved one's first name, last name and a brief message.

*Safe and Well communication website. Source:  
[Safeandwell.communityos.org](http://Safeandwell.communityos.org)*

<sup>56</sup> Stakeholder Interviews.



## Areas for Improvement

### **Finding 1: The County faced challenges developing an effective and secure database for tracking.**

Challenges presented themselves concerning the database that was used for tracking missing persons cases. First, a template database that staff were preemptively familiar with and trained on was needed. For some, it was difficult to obtain the information outlined in the database and required in investigations. This sometimes required “digging” and deduction to acquire useful and accurate information. Next, a database that could be shared and updated in real-time was needed to better coordinate missing persons operations. With multiple agencies and staff working simultaneously on different cases, this capability would have added great efficiency and value to operations. Lastly, the database contained sensitive and confidential information, so staff needed to be trained on how to handle such information and the system itself needed proper security measures.

### **Finding 2: Missing persons operations were complicated by the dispersal and condition of County residents following the incident.**

Missing persons operations were difficult to execute because of the wide dispersal of County residents in surrounding areas and even different states. Displaced residents had no choice but to procure living accommodations in places outside of Butte County because temporary housing facilities were at maximum capacity. To add to this, many evacuees had limited access to phones and internet, further limiting residents’ access to information<sup>57</sup>. These factors greatly complicated the missing persons efforts, as people were not receiving public information regarding missing persons processes and thus not responding with the directed public action.

## Recommendations

### **Strengths**

Recommendation 1: Document the missing persons process to increase the efficiency of missing persons operations in future disasters.

Recommendation 2a: Engage jurisdictions with known disaster-related expertise early on in the response to extrapolate best practices and implement tested processes.

Recommendation 2b: Continue to engage mutual aid partners and strengthen relationships through exercising joint capabilities.

Recommendation 3a: Further socialize the established process for missing persons cases to the public to better prepare residents to perform the process in future large-scale evacuations.

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<sup>57</sup> Tara Law, “870 People Are Still Listed as Missing in the Camp Fire. Inside the Long Process to Find Them,” *Time* (Nov 2018), [www.time.com/5460674/california-wildfire-missing/](http://www.time.com/5460674/california-wildfire-missing/)



Recommendation 3b: Develop pre-approved informational sheets/graphics regarding the missing persons process to easily and quickly share in future disasters.

### Areas for Improvement

Recommendation 1a: Track the creation and release of the expected California Office of Emergency Services (Cal OES) missing persons tool, which consists of a web-based platform to support missing persons operations<sup>58</sup>.

Recommendation 1b: Train staff in missing persons operations to enhance their capability to collect critical information for missing persons investigations and to properly secure confidential information contained in missing persons data bases.

Recommendation 1c: Implement protective measures and security procedures to secure the chosen missing persons database.

Recommendation 2a: Establish processes for disseminating information to and coordinating with neighboring jurisdictions and other areas where residents are expected to be following disasters where mass evacuations have occurred to support missing persons operations.

Recommendation 2b: Socialize the responsibilities of residents to confirm their wellness following disaster and follow-up with missing persons status.

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## Repopulation

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### Summary

Repopulation efforts were prioritized quickly during the Camp Fire as the county recognized the importance of granting people access to their homes and property. Every effort was made to accomplish this process in a way that repopulated residents in a timely but safe manner. The County convened an interagency planning team, including private sector partners, which worked collaboratively to repopulate evacuated zones. Great consideration was taken to ensure the privacy, safety, and well-being of the community through this process. Overall, the previously established process for repopulation worked effectively, even for an incident of this scale and severity.

### Strengths

**Finding 1: Repopulation was prioritized rapidly, and the County showed continued commitment to repopulating evacuated areas.**

On November 9, the first repopulation meeting was held by an interagency planning team. This meeting was established only one day following the start of the Camp Fire and while evacuations

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<sup>58</sup> Stakeholder Interviews.



were still being ordered, underscoring the County's commitment to repopulation. The County's acknowledgement of the importance of repopulation so early in the response was a major strength. Two repopulation meetings were held each day until all areas were repopulated. At these meetings, the interagency planning team would provide status updates and strategize<sup>59</sup>. The county understood the importance of allowing residents access to their homes and property and exemplified their commitment to the community through its unwavering dedication to repopulating in an effective and efficient manner.

**Finding 2: The pre-established process for repopulation worked effectively for an incident of this scale.**

The process utilized for repopulation was pre-established but had only been tested in incidents of a much smaller scale and severity. The process maintained its relevance during the Camp Fire, providing a successful process for coordinating repopulation. Evacuated areas were categorized into different geographic zones. Mapping was used in tandem with a coding system, which used symbols to indicate the status of each area. For example, a circle indicated different zones, but once an area was repopulated, that circle was crossed out and shaded in with a blue marker<sup>60</sup>. Each agency involved (BCSO, Environmental Health, Public Works, utility companies, etc.) would brief out on progress made since the last meeting and discuss any risks to repopulation. Before any area was repopulated, every agency involved would need to sign off in agreement to repopulate that area. This process ensured consensus by all participating representatives. The overall objective of the planning team was to make sure the area was safe for "little Johnny" before lifting evacuation orders and allowing repopulation. Overall, the process followed allowed for successful execution of repopulation, providing a structure for coordination amongst the multitude of agencies involved in the repopulation process<sup>61</sup>.



*Multiple agencies working to prepare for repopulation.  
Source: Butte County Sheriff's Office.*

**Finding 3: The Alameda County Drone Team was a useful resource for first responders, the public, and insurance companies.**

The Alameda County Sheriff, in combination with a private drone team, flew the entire disaster-affected area and mapped it. The footage and photography were then posted on "buttecountyrecovers.org" for use by both first responders and county residents. For one, this lessened the call volume to the BCSO, as people were provided greater situational awareness on the status of their homes. There was immense pressure by the community to get back to their

<sup>59</sup> Stakeholder Interviews.

<sup>60</sup> Andre Byik, "We don't want a tragedy upon a tragedy": Inside Camp Fire repopulation effort," Mercury News (Nov 2018), <https://www.mercurynews.com/2018/11/27/we-dont-want-a-tragedy-upon-a-tragedy-inside-camp-fire-repopulation-effort/>

<sup>61</sup> Stakeholder Interviews.

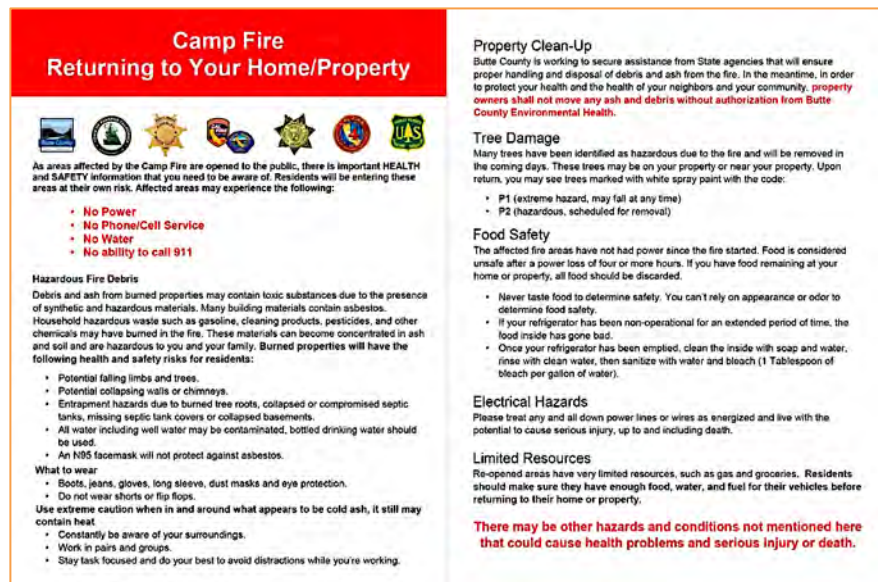




homes and property, so this resource served as a means for residents to view their neighborhoods without entering restricted areas. Insurance agencies could also use this tool to substantiate insurance claims. This resource was a value add to operations, providing answers to residents in uncertainty and lessening the burden on law enforcement agencies.

**Finding 4: Redundant information platforms were utilized to ensure the public received sufficient information regarding repopulation.**

Multiple levels of public information efforts were maintained throughout the repopulation process to provide the public with sufficient access to information. For one, nightly press conferences were held throughout the duration of the Camp Fire response and recovery phases. Eventually, these press conferences became centered around repopulation. Information was also disseminated via social media, the county mass notification system, and the Geographic Information System (GIS)



*Information disseminated to the public regarding repopulation. Pamphlet was also shared in Spanish. Source: CAL FIRE / Butte County Fire Department Twitter.*

website. CodeRed was used to geographically target areas, which had been repopulated and alert residents of those areas. The County even reached out to hotels within a 100-mile radius to post recovery and repopulation information. Redundant information platforms were utilized to ensure the widest reach of information, and information was shared in multiple languages to ensure comprehension by populations with limited English proficiency.

**Finding 5: Regard and empathy for the privacy, safety, and well-being of displaced community members was a central tenet of repopulation.**

Repopulation was carried out in a manner that greatly acknowledged the privacy, safety, and well-being of County residents. When repopulation occurred, measures were in place to allow only residents access for the first 24 hours. Additionally, those re-entering had to provide proof of residency to enter the repopulated zones<sup>62</sup>. This allowed residents to sift through ashes and mourn damages privately. Additionally, Butte County Environmental Health developed and disseminated “re-entry bags”, which provided PPE and the Health Officer’s health advisory, and other agencies shared critical information surrounding the safe re-entry of burn areas. Butte

<sup>62</sup> Andre Byik, “We don’t want a tragedy upon a tragedy”: Inside Camp Fire repopulation effort,” Mercury News (Nov 2018), <https://www.mercurynews.com/2018/11/27/we-dont-want-a-tragedy-upon-a-tragedy-inside-camp-fire-repopulation-effort/>





County Department of Behavioral Health was also on-site to provide mental health support. Ultimately, the County showed immense empathy and regard for its residents during the repopulation and re-entry process.

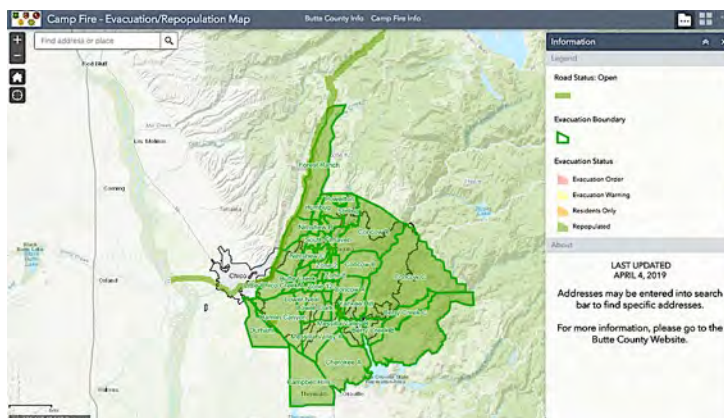
## Areas for Improvement

### Finding 1: Private sector engagement in repopulation meetings proved difficult.

While having an interagency planning team was necessary to ensure all aspects of repopulation were considered and coordinated effectively, it was difficult to garner participation in meetings by those with decision-making authority, particularly by non-County, private entities. Agencies would provide representatives for the meeting, but when it came down to making critical decisions, the right roles and positions would not be present. It took some time to demand participation by agency representatives who had authority to execute critical needs, and it delayed the process more once these persons were involved and had to be briefed on the situation in the field to make informed decisions. Most notably, utility restoration was a major challenge. BCSO, however, demanded that utilities be restored correctly and efficiently, exemplifying their commitment to repopulating the residents of Butte County<sup>63</sup>.

### Finding 2: Prioritizing which evacuation route should be opened and predicting cascading impacts of opening an evacuation route was difficult to determine.

It was difficult to determine which evacuation routes should be reopened first and to predict the cascading impacts of opening different routes. Opening one route because it met the standards of the interagency planning team could cause difficulties in the efforts to repopulate other areas. Additionally, it was difficult to determine which routes and areas should be prioritized for opening and repopulation. However, the interagency planning team worked together and coordinated effectively to overcome these challenges and effectively repopulate the community. For instance, the planning team prioritized the opening of Pentz Road, a main transportation artery connecting Magalia and Stirling City to the valley so that residents sequestered within evacuated areas could access critical resources located in the valley<sup>64</sup>.



*Mapping system used to indicate repopulated areas.  
Source: [Buttecountyrecovers.org](http://Buttecountyrecovers.org)*

<sup>63</sup> Stakeholder Interviews.

<sup>64</sup> Andre Byik, “We don’t want a tragedy upon a tragedy”: Inside Camp Fire repopulation effort,” Mercury News (Nov 2018), <https://www.mercurynews.com/2018/11/27/we-dont-want-a-tragedy-upon-a-tragedy-inside-camp-fire-repopulation-effort/>



### **Finding 3: Information could have been conveyed more effectively surrounding repopulation timeframes.**

There was some public unrest concerning repopulation. Information could have been conveyed more effectively to put the public at ease and to more effectively repopulate the disaster-affected areas. The county was hesitant to provide specific dates for repopulations due to the consequences associated with not meeting these deadlines. Therefore, the County would overestimate the time needed to repopulate and provide date estimations that allowed ample time to accomplish objectives for repopulation. In some cases, the County would allow residents access to evacuated areas for eight hours so that they may sift through ashes and see the status of their property. There was difficulty surrounding this eight-hour period. Some residents were staying hours away, and the eight-hour period did not accommodate hours of drive time to return to the County. Overall, confusion continued surrounding the timeframes for repopulation.

## **Recommendations**

### **Strengths**

Recommendation 2: Document the process established for repopulation to formalize the process and ensure continued coordination in repopulation events.

Recommendation 3a: Consider investing in a County capability to conduct drone flights and capture aerial footage. Maintain relations with the private company tasked with mapping.

Recommendation 3b: Formalize the recommendation of providing drone footage following major disasters for the purposes of resident peace of mind and insurance substantiation.

Recommendation 4: Document the use of redundant information systems in a Crisis Communications Plan to ensure the widest reach in public information efforts.

Recommendation 5: Formalize the processes of allowing residents private access to their property following evacuation, providing residents with environmental health resources as appropriate, and supplying mental and behavioral health resources during repopulation.

### **Areas for Improvement**

Recommendation 1: Establish and further strengthen relationships with the appropriate positions with private sector utility partners to ensure access to decision makers.

Recommendation 2: In future evacuation incidents, continue the coordination process with an interagency planning team to determine the appropriate prioritization of evacuation routes and the cascading impacts of opening disaster-affected areas.

Recommendation 3: Further establish a mechanism that allows residents ample time to view their property following disaster. Engage the public in this process and document it in formalized plans.



## Transition to Recovery

### Summary

The EOC officially transitioned to recovery on November 26 at 8:00 AM, coinciding with the opening of the DROC<sup>65</sup>. Recovery operations included providing information and assistance to affected members of the public, conducting debris removal operations, coordinating the implementation of environmental protective measures, and managing the Right of Entry (ROE) permit process. Despite the trauma associated with the incident and the exhaustion of government personnel, the County and County staff remained committed to the community and their well-being far beyond the initial response phase. This commitment continues to this day. While Butte County has made tremendous progress since November 8, because of the severity of the fire, which was active for 17 days, scorched 153,336 acres, and damaged or destroyed 18,804 structures, full recovery remains and will continue to be an ongoing effort<sup>66</sup>. A fuller analysis of Camp Fire Recovery will be documented in a separate After Action Report. This section outlines some strengths and areas for improvement for the initial transition to recovery efforts, which may also be addressed to a fuller extent within the Recovery AAR.

### Recovery: The Hard Truth

“There is no way that the current housing stock can accommodate the people displaced by the fire. We recognize that it’s going to be some time before people rebuild, and there is an extremely large housing need.”

~ Casey Hatcher, Deputy CAO and EOC PIO

### Strengths

#### **Finding 1: The County and the Federal Emergency Management Agency worked together to provide direct assistance to persons affected by the fire.**

The County initially established a Local Assistance Center (LAC), on November 16, 2018, at the Chico Mall to provide information and assistance to County residents affected by the fire<sup>67</sup>. This was transitioned to a Disaster Recovery Center (DRC) with FEMA funding and support. The DRC served as a singular location for disaster victims to procure assistance from FEMA, the California Office of Emergency Services, Butte County, the Department of Housing and Urban Development, and the Red Cross<sup>68</sup>. The main DRC was supplemented with mobile DRC units that rotated to different locations around the County to better serve the community. The DRCs operated with extended hours and would not close down until all persons waiting in line were served. The DRCs were well attended, and the presence of FEMA helped to attract people and

<sup>65</sup> Butte County, EOC to DROC Transition Plan. Butte County, 2018

<sup>66</sup> California Department of Forestry and Fire Protect, Camp Fire. CAL FIRE, 2018  
[www.fire.ca.gov/incidents/2018/11/8/camp-fire/](http://www.fire.ca.gov/incidents/2018/11/8/camp-fire/)

<sup>67</sup> Butte County – News and Announcements, Local Assistance Center Opening Tomorrow for Residents Impacted by the Camp Fire. Butte County, 2018

<sup>68</sup> Hannah Darden, “FEMA opens disaster recovery center in Paradise, offering services to Camp Fire victims,” The Sacramento Bee (Jan 2019), [www.sacbee.com/news/california/fires/article225084250.html](http://www.sacbee.com/news/california/fires/article225084250.html)



enhance the capability of the DRCs. The LAC and eventually the DRC allowed disaster victims to register for FEMA assistance, to submit ROE paperwork for government subsidized debris removal, and to apply for other assistance.

**Finding 2: The County proactively reached out to the public to provide information.**

In addition to the DRCs there were concerted efforts to provide information and make resources available to the public. The Board of Supervisors held “open houses” to provide a forum for community members to ask questions. A Family Support Center was opened as a place where persons who lost loved ones in the fire could obtain information, support, and assistance. The County held community meetings and developed an online Q&A to further inform the community. CalOES provided information and media assistance and the Red Cross provided information to evacuees. The process was enhanced through frequent public messaging using public and social media.

### Areas for Improvement

**Finding 1: Recovery operations continued for so long and involved so much additional coordination, that these activities cannot adequately be addressed within this After Action Report.**

Recovery continues to this day within Butte County, and at the time of writing for this AAR, activities such as debris management, rebuilding, housing, and behavioral health continue to tax local programs and departments. While this section introduces some of the initial strengths and areas for improvement in recovery between November 2018 and March 2019, the data collected for this document could not account for the rest of the recovery activities which continued throughout 2019 and are still ongoing. Based on the size and scope of these continuing recovery efforts, it is recommended that a separate AAR be developed to evaluate and examine these issues in depth.

### Recommendations

#### Strengths

Recommendation 1: The County should document the successful operations of the DRC and develop procedures to rapidly stand up full service DRCs in the event of future incidents.

Recommendation 2: Document the successful approaches used for public outreach and information during recovery in the event of future incidents.

#### Areas for Improvement

Recommendation 1: Develop a separate Camp Fire After Action Report / Corrective Action Plan specific to the Recovery activities and timeframes not already addressed within this document.



# Final Thoughts

## Implications for Other Jurisdictions

Certainly, the story of the 2018 Camp Fire is one where unimaginable tragedy was met with unparalleled heroism and community resiliency. Those who took part in the response efforts, whether professionals, volunteers, or neighbors helping other neighbors, stood toe-to-toe against overwhelming circumstances. They operated with courage and creativity, leaned upon existing and new relationships, and repeatedly applied innovative solutions to the onslaught of complex challenges they faced.

This AAR was commissioned by the Butte County Emergency Services Officer, on behalf of the Chief Administrative Officer, to document and analyze the actions taken in response to the Camp Fire. The findings and improvement recommendations found herein are intended to help guide the County's way forward as it bolsters its capacity to protect against catastrophic incidents that may threaten the County's public health, community safety, and operational vitality in the future.

Going forward, the County's success hinges upon an unrelenting commitment from its officials, departmental staff, and the whole community to the process of continuous and comprehensive improvement, particularly in the wake of the deadliest wildfire in the State of California's history.

It is also recognized that this AAR will welcome a much larger audience from outside Butte County. May all those who read this document benefit from Butte County's culture of unity and grit, hard-earned experience and wisdom, and actionable mitigation strategies for rebuilding stronger.





# Appendices

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## Stakeholder Interview Participant List

Stakeholder Interview Participants List	
<i>Name</i>	<i>Department</i>
Aaron Quin	Butte County – Public Health
Al Smith	Butte County – Sheriff's Office
Andrew Miller	Butte County – Public Health
Benjamin Matray	Butte County – General Services
Bradley Meyer	Butte County Sheriff's Office
Callie Lutz	Butte County – County Administration
James Bell	Butte County Sheriff's Office
Casey Hatcher	Butte County – County Administration
Cindi Dunsmoor	Butte County – County Administration/Office of Emergency Services
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Debbie Heath	Butte County – General Services
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Mike Thompson	Butte County - Sheriff's Office
Miranda Bowersox	Butte County – Sheriff's Office
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Radley Ott	Butte County – Public Works
Ryan Soulsby	Butte County – Public Health/Animal Control
Scott Kennelly	Butte County – Behavioral Health
Shari McCracken	Butte County – County Administration





Stakeholder Interview Participants List	
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Stephen Collins	Butte County - Sheriff's Office
Tamara Ingersoll	Butte County – General Services

## Hot Wash Participant List

Hot Wash Participants List	
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Abigale Henderson	Butte County - Employment and Social Services
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Danielle Nuzum	Butte County - Public Health



Hot Wash Participants List	
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Dennis Schmidt	Butte County – Public Works
Don Taylor	Butte County – Behavioral Health
Dwayne Martin	Butte County – Probation
Eric Lyon	Butte County – Sheriff’s Office
James Bell	Butte County - Sheriff’s Office
Jamie Decker	Butte County – General Services
Jason Ferguson	Constant Associates
Jennifer Hard	Butte County – Probation
Jessica Driskill	Butte County – Public Health
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John Brazzi	Butte County – Sheriff’s Office
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Matthew Twietmeyer	Esri



Hot Wash Participants List	
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Meegan Jessee	Butte County – County Administration
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Mike Wright	Butte County – Information Systems
Miranda Bowersox	Butte County – Sheriff’s Office
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Pete Calarco	Butte County – Development Services
Radley Ott	Butte County – Public Works
Ryan Soulsby	Butte County – Public Health/Animal Control
Samantha Skinner	Butte County – General Services
Sara Miller	Butte County – General Services
Sang Kim	Butte County – County Administration
Shari McCracken	Butte County – County Administration
Shelby Boston	Butte County – Employment and Social Services
Sloan Grissom	Constant Associates
Stephen Collins	Butte County - Sheriff’s Office
Syndee Howerton	Butte County – General Services
Tamara Ingersoll	Butte County – General Services
Wyatt Jenkins	Butte County – Public Works



## Hot Wash Feedback Form Summaries

### FEEDBACK – Camp Fire County-Wide Hot Wash

The following information was extracted from 39 completed Participant Feedback Forms from the Camp Fire County-Wide Hot Wash. Feedback provided by participants on the workshop was very positive – many commenting that the discussion was well structured and organized and that it was great to be in the same room to talk with people from other departments. For future events, participants suggested scheduling additional time for discussions and reporting out after discussions, as well as holding the hot wash sooner after the event to fuel an even more productive conversation.

#	Assessment Factor	Strongly Disagree			Strongly Agree	
		1	2	3	4	5
1.	The hot wash was well structured and well organized.	0%	3%	0%	23%	74%
2.	The hot wash was designed to accomplish the objectives identified.	0%	3%	3%	23%	71%
3.	The materials provided helped the participants understand and become engaged in the discussion.	0%	0%	10%	41%	49%
4.	The facilitators were knowledgeable about the material, kept the discussion on target, and were sensitive to group dynamics.	0%	3%	3%	25%	69%
5.	Participation in the hot wash was appropriate for someone in my position <b>due to my real-world experience during the Camp Fire.</b>	0%	3%	3%	15%	79%
6.	Participation in the hot wash was appropriate for someone in my position <b>due to my current job responsibilities.</b>	0%	3%	5%	18%	74%
7.	The participants included the right people in terms of responsibilities and mix of disciplines.	0%	3%	3%	20%	74%



## Participant Comments

The following is a summary of the comments received in response to the additional questions on the workshop feedback form.

### 1. What two things did you like about this event?

- Being able to get together and talk about events with other departments without interruptions
- Mixture of people and departments
- Open environment
- Really awesome to connect with all the key personnel that I haven't seen in a while
- Great to be able, after a year almost, to look at the incident with the luxury of hindsight to provide some information that can help a county with a future disaster or even help us if, god forbid, we have a large-scale incident
- Organization and collaboration
- The structure included clear guidance, the mentoring, advance prompts & schedule
- Casual schedule was appreciated
- I appreciate the opportunity to follow-up with additional thoughts and input
- Very well structured and very good conversation
- The collaboration between the different people in the room
- New ideas that were brought up
- Great job! Well organized
- You brought people who knew what they were doing
- Well organized and questions provoked good feedback
- Collaboration, honesty
- Fast-paced & productive
- Had the right mix of people in the room
- Good structure
- The small group discussion format was helpful
- There was plenty of time to discuss, we were not rushed
- Great to hear everyone's report at the end of each session
- Well organized & material was professional
- Great discussions
- Well organized
- Great communication between areas
- This workshop was helpful. I do not have any suggestions for changes





2. What two things do you think need to be changed for future events?

- The email survey wasn't good
- Objectives printed to see at the table vs. just on projector
- Perhaps an inclusion of interchange for those that were in multiple roles to rotate between tables
- The pre-survey could have been modified for this situation. I found myself reacting to some of the questions
- I liked the structure of the event, but with so much to cover/remember, it would help if it was an all-day event
- Can be challenging with some who monopolize conversation (not sure how facilitator can address)
- Start on time – a lot of expensive people in the room
- Hold workshop sooner – of lot of things have been forgotten
- Having a copy of the timeline in each packet would be helpful
- More time for reporting out after discussions
- More participation for the reporting out piece

3. Please provide any other comments/observations as appropriate.

- Maybe use “sticky wall” to allow people to put all their ideas up and then group according to topic
- Thank you! I appreciated hearing the recommendation for more safety/safety officer involvement in other areas...public works, etc....
- Thank you!
- Great job! Great structure
- Hope to get a compilation of notes/comments and suggestions
- Really appreciated having a note taker from the consultant group at our table to capture the discussion
- Overall, very well run & the right people were in the room!



## Survey Data Summary

An electronic survey was developed and widely distributed to collect feedback from individuals involved in the response and recovery efforts of the Camp Fire. There were **116 total respondents** to the survey. The survey was designed to both paint a picture of the holistic response and procure information on specific operational facets of the incident, with some questions asked to all survey respondents and some questions asked to those who indicated they filled a specific role during the incident.

Data was collected from senior leadership/the policy group, Emergency Operations Center (EOC) staff, Joint Information Center (JIC) staff, Butte County Public Health (BCPH) Department Operations Center (DOC) staff, field-level responders, medical/health field-level responders, and others. The distribution of survey respondents is graphically depicted below.

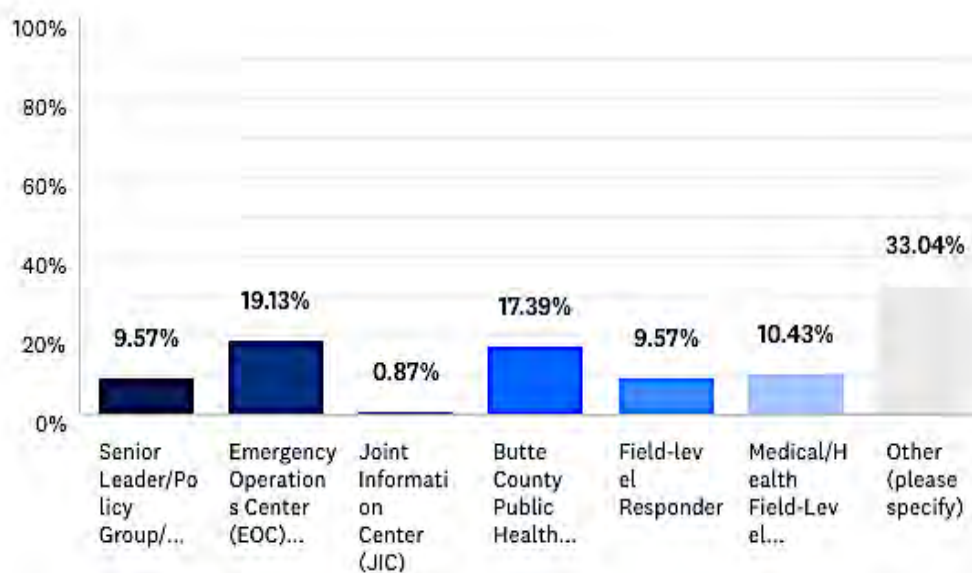
The survey was confidential, and both multiple choice and open-ended questions were asked, providing a means for both quantitative and qualitative data analysis. The results of the survey are delineated below. Quantitative data is graphically depicted and is supported by qualitative information received through open-ended responses.

### Overall Quantitative Analysis

The graphs below visually display the results of survey questions asked to all survey participants.

Which of the following best describes your primary role during the Camp Fire response and recovery effort?

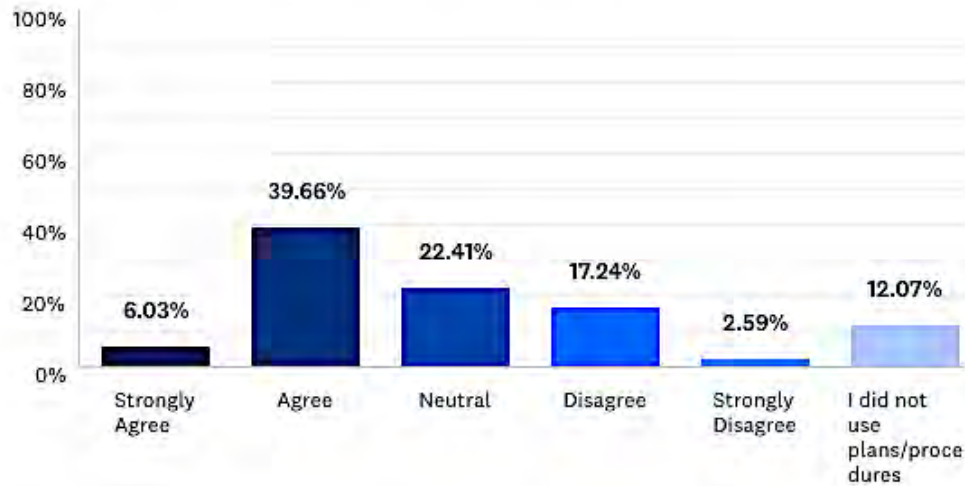
Answered: 115 Skipped: 1





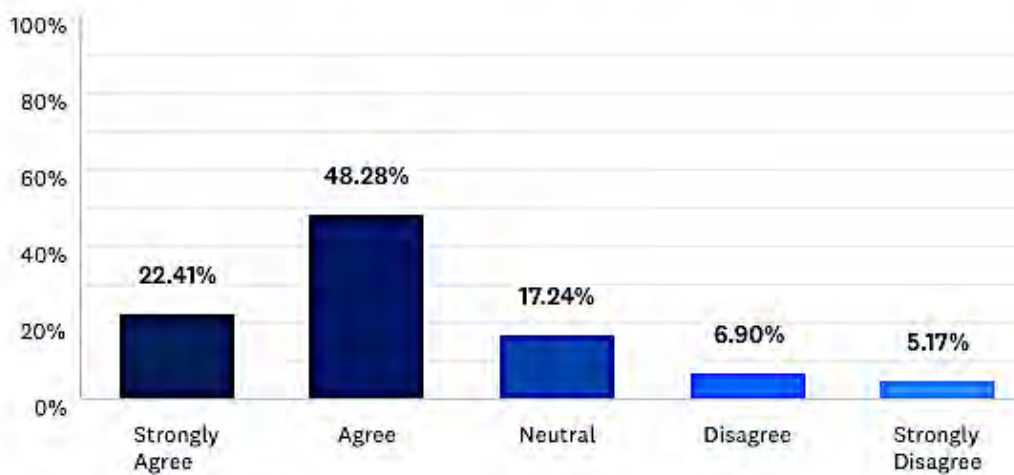
The written plans/procedures I used adequately supported my role throughout the response/recovery effort.

Answered: 116 Skipped: 0



I have received the proper training(s) prior to the Camp Fire to adequately prepare me for the role to which I was assigned.

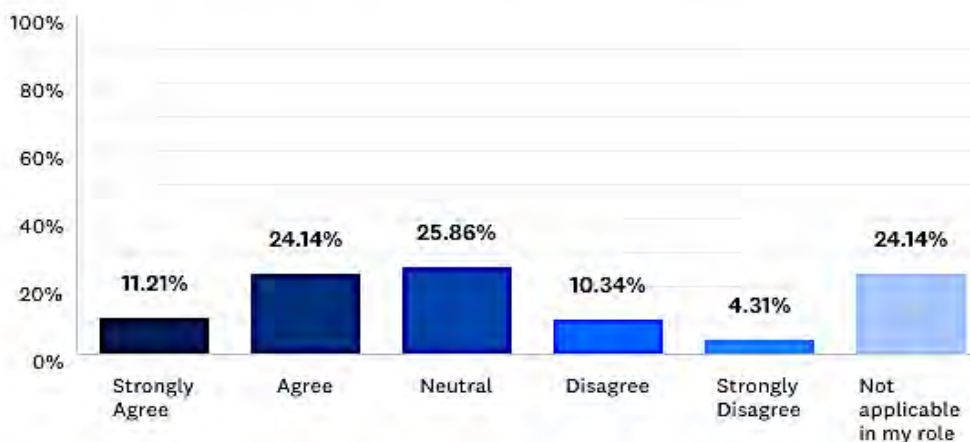
Answered: 116 Skipped: 0





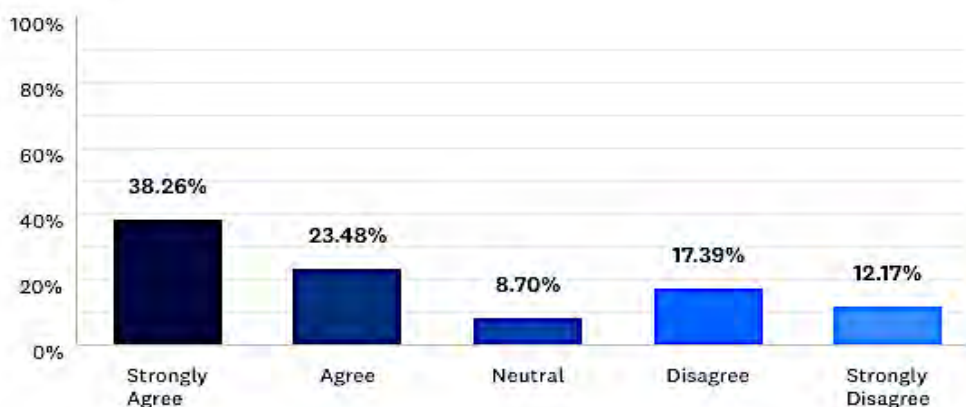
The training I received prior to the Camp Fire adequately prepared me to support individuals with disabilities and access and functional needs (DAFN).

Answered: 116 Skipped: 0



No more than 12 months prior to the Camp Fire, I participated in a tabletop, functional, or full-scale exercise and/or I participated in a real-world response that helped prepare me for the role to which I was assigned.

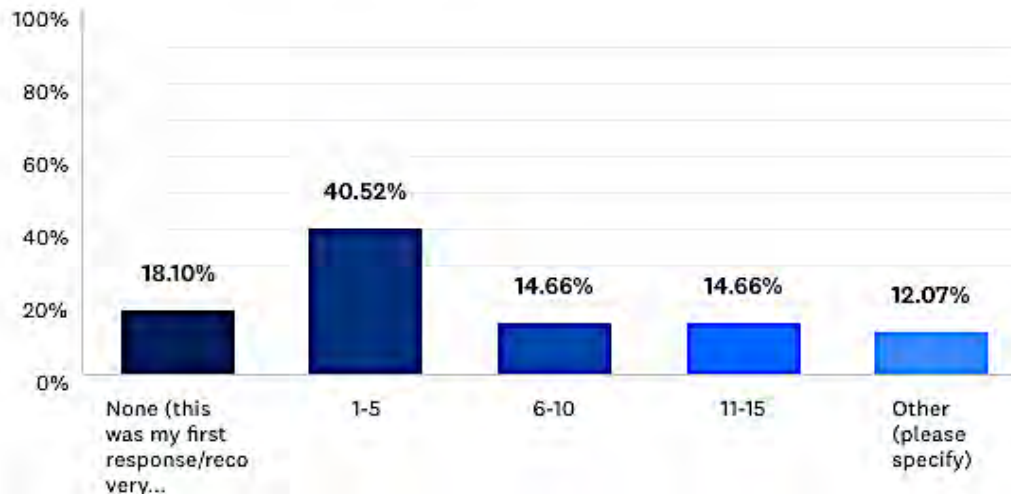
Answered: 115 Skipped: 1





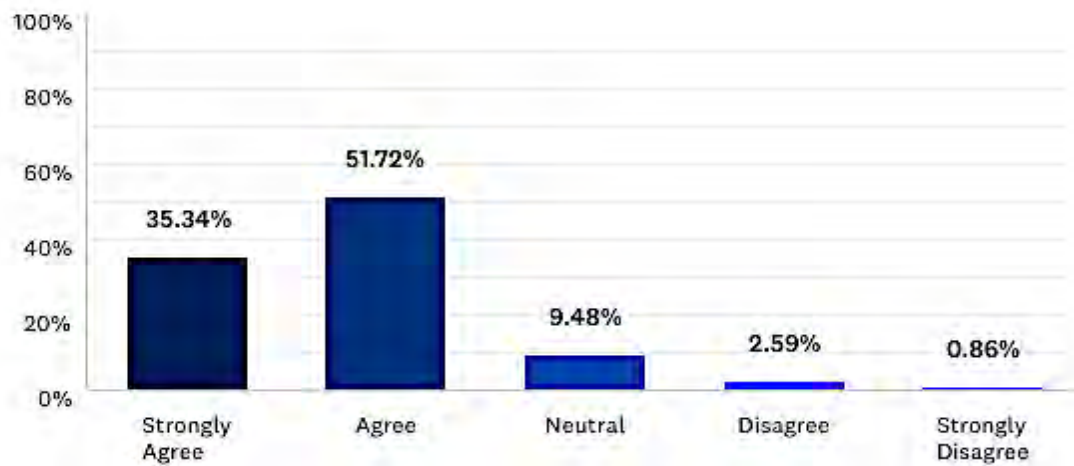
## Prior to the Camp Fire, how many real-world response/recovery operations have you been a part of?

Answered: 116 Skipped: 0



## Adequate provisions, such as food and basic hygiene, were provided at my work location.

Answered: 116 Skipped: 0

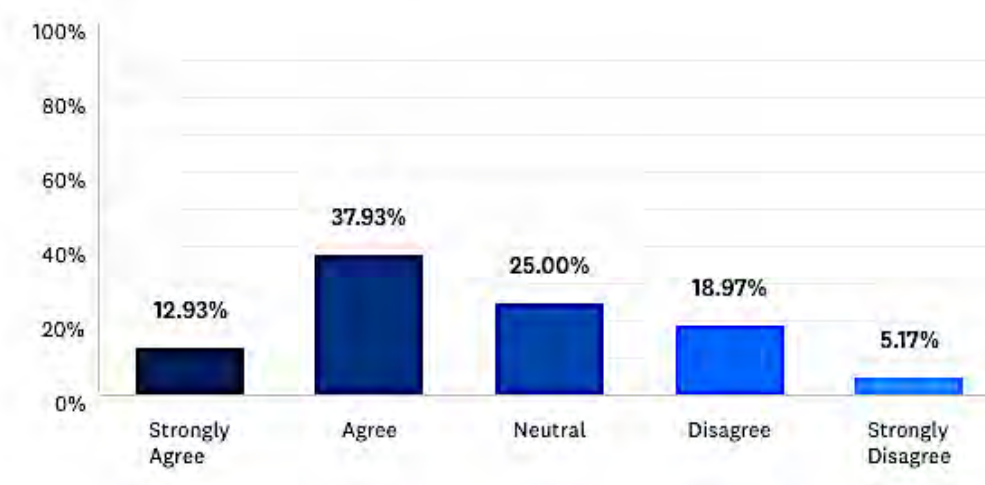






Psychological and emotional support programs and resources were readily made available to response and recovery staff at my level.

Answered: 116 Skipped: 0



### Overall Qualitative Analysis

The following information was procured through open-ended survey questions asked to all survey respondents. Direct quotes were taken from survey responses. Not every response is published in the report, but effort was taken to provide a variety of responses which capture the majority opinion off all who provided an answer to the question.

**Many successful Camp Fire response/recovery outcomes are attributed to the innovative nature of the responders. What new plans, policies, or procedures did you help develop or implement?**

- “This was a disaster scale that none of us had experience with, nor were there similar scale events to draw form. Checking with others like Napa, Sonoma, Shasta, and Redding was helpful in the initial recovery stages.”
- “We tried to streamline the resource requests and coordinate responses to shelters. We developed transportation plans that were critical to survivors.”
- “We worked collaboratively with all jurisdictions on initial legislative needs.”
- “We initially started with coroner investigators searching for and recovering remains, however, this was slow and ineffective. We then added anthropologists who could differentiate between human and animal remains. This worked better at identifying remains, however, it was still a slow process for searching. We then had search and rescue teams search the properties and identify remains, which an anthropologist would confirm, and then anthropologists and coroner investigators would recover the remains. All the remains were



sent to Sacramento County Coroner's Office for autopsy and identification. This seemed to be the most efficient process for searching so many structures and properties."

- "The volunteer center collaborated with Hands On Sacramento and requested mutual aid, where we were able to vet spontaneous volunteers in large numbers that were coming from over 2 hours away. This provided an opportunity to reduce traffic in the volunteer center, and we were able to directly deploy staff to where they needed to be. We were also able to recruit staff from outside areas not affected by the Camp Fire. We utilized our process of using notaries as an agent for the county to verify the Disaster Service Worker forms which were essential to provide workers compensation for the spontaneous volunteers."

### **What notable strengths did you observe that should be documented, codified, and built upon?**

- "Agency relationships were good. The community preparedness work, evacuation plans, contra-flow processes, and emergency traffic plans were all critical to saving lives and can be further built upon."
- "The drive to care for animals in the best way possible. There were so many teams from all over the state that came together using different ideas to get the job done."
- "Pre-drafted public information for evacuations, sheltering for people and animals, and repopulating."
- "Redundancies in communication demonstrated by Incident Management Teams."
- "Process for providing prescription medications at shelters. Butte County Health process for certifying or authorizing impromptu medical shelters."
- "Mobilizing a task force and paperwork/spreadsheets for documenting mass reports of missing people."
- "Staff being willing to wear whatever hat needed to be worn to relieve that specific crisis at that specific moment. In a disaster, a job title doesn't correctly or completely cover the duties you may have to perform in order to deescalate a situation."
- "NVADG senior leader's commitment, focus, and innovation must become a blueprint for all upcoming leaders. Established systems to effectively connect with animal and human shelters as well as animal rescue and shelter organizations. Having a systematic way to connect with all elected officials relevant to the mission of the event and the organization."

### **Based on your experiences, what areas for improvement did you observe that should be addressed through a corrective action plan?**

- "Lots of focus on the response, but not a lot on the "recovery" phase – specifically the long-term care and housing of animals at the temporary shelters. There are many things that could have been put into place that would have reduced the amount of infectious disease at the shelter, and to protect the emotional, behavioral wellbeing of animals housed at temporary shelters."
- "It would be helpful to have a high-level handbook that is situated at the EOC for each section to help inform your role (beyond separate training material)."



- “The call for volunteers was strong in the beginning, then there was a miscommunication that we had enough help. Yet volunteer numbers dwindled, and we could have really used extended volunteers for the entire duration of the temporary shelter's use.”
- “We probably should have brought more outside resources in sooner.”
- “Better equipment. I participated in safety surveys that occurred shortly after the fire was suppressed in the town. Respirator style masks should have been made available for those working closest the debris.”
- “Region wide traffic management, improved ingress/egress routes (wider lanes and shoulders), emergency notification, fuel reduction in critical routes”
- “We need to have plans to adequately staff for a large-scale ongoing incident. We need specific people to track volunteers and get their paperwork/documentation. We need a better understanding of which responsibilities are local and which are state. We need to have written procedures for staff in the shelters to follow and just in time training for this as well. There needs to be a better way to communicate what was done between shifts so that work isn't duplicated. We need to have cell phones ready for shelters from the get-go. This took weeks for us to get in place. We need a clearer idea what forms are needed to be filled out for FEMA reimbursement.”
- “More detailed written procedures on how to do the job. And clerical duties should be conducted by administrative staff; and not professional staff such as Environmental Health Specialists or Hazardous Material Specialist (i.e. scanning, photocopying, data entry and filing)”
- “The local and out of this jurisdiction chronic homeless took advantage of the free resources and services meant for evacuees and in the process, caused much behavioral and physical disruption in the delivering those services and resources.”

**Based on your experience/observations, what changes would you make to ensure a successful response to a natural disaster, if any?**

- “Better communication early on with shelters; ask for a designated number for each shelter to facilitate communication with the same personnel”
- “Natural disasters of this nature will continue, maybe not of this magnitude but our environment, wildland urban interface has set the stage. To change it we need, in no particular order to: #1 Do a better job of developing communities, neighborhoods and building to be resistive and resilient to fire; #2 we need to do a better job of preparing people and communities with regard to emergencies, evacuation plans, go bags, early warnings and evacuation information; #3 we need to do better with fuels reduction and forest health, better defensible space and ember ignition and general forest health by reducing fuels; #4 we need to prepare the fire service and emergency responders for the new 21st Century fire environment.”
- “Better communication at all levels, especially from top down”



- “Have a Wildland Fire Response Plan written that identifies the County's strategy dealing with all facets of incident action planning throughout every phase of an incident and practice its implementation.”
- “As many concise and ready-to-access guidance documents as possible, ranging from set up of shelter, to how to secure medications and/or needed equipment, and a clear plan for communication with staff, including expectations when phone lines and power are interrupted.”
- “Try to get disaster respondents to come out for 2-3 days so they can get a grasp of the roles and duties. Then schedule the replacement to overlap one day so they can be trained and caught up on the procedures.”
- “More channels to distribute information to affected residents in multiple formats and languages, more PIO staff to assist in the EOC, more equipment for PIO staff, training for PIO staff about JIC operations, training with multiple agencies that participate in a JIC.”
- “County should have a dedicated emergency event program that can be used by all employees to track orders, do 214, save documents, etc. so all documentation is one centralized place. For large events, bring in extra help early to help out.”
- “We need more reliable communications. I think sometimes communication between units and up to management was a challenge to understand what leadership wanted to see happen. We closed the EOC to soon. We needed to start recovery work, but that should not have been accomplished by closing the EOC. EOC operations continue to this day, but that wasn't initially recognized. What was centralized between the County and Paradise and what wasn't always clear. The initial DROC process left a significant gap between operations and management direction. In the finance section there is significant overlap between what finance does and what OEM staff do, it would be good to clarify rolls and responsibilities.”
- “We have to quantify this incident; it was a natural disaster. While firefighters and emergency responders do a great job 95+% of the time, there are moments like this where conditions are so extreme that at that point it becomes all about life safety. In order to continue to provide a high level of integrated response, we the public safety community, needs to continue to work collectively, train, respond and work at the ICP collectively. We need to continue to develop our community evacuation plans and internal traffic and response plans and execute those during emergencies. This was a disaster under conditions that could not be mitigated.”
- “Having all responding agencies or NGOs understand lines of communication up and down (ICS or other agreed upon system). Too many players thought they were “in charge”.”

### How has the Camp Fire affected your department as a whole?

- “Our fire seasons have been very demanding and hard on our employees/firefighters physically, and especially mentally, and the Camp Fire was the tipping point. Mental health has been a big outcome. Indirectly, post Camp Fire legislation, etc. has and will continue to shape our Department in all aspects.”



- “Behavioral Health lost buildings and has staff working in other offices. Our productivity and billing are down. Our expenses are up replacing items lost in the fire and having employees in new offices.”
- “It has completely inundated our Department rendering us unable to complete normal activities.”
- “Workload has been impacted. About 20% of our staff lost their homes. It can be very difficult dealing with and supporting the loss of others when our staff are going through their own loss.”
- “At CalOES, the incident was taxing, but all within the scope of the agency's mission. At DTSC, it has given the department a better breadth of understanding GIS-technology and optimizing hazardous waste removal operations.”
- “A few people lost their homes and have since left the department. General Services is working on resource request document reconciliation and it has been a very time-consuming task that has taken a few of us away from our normal job duties.”
- “People are traumatized, which affects work productivity due to being distracted and taking time off to take care of things. Also, our department has lost several staff who have relocated or found other employment, and we anticipate there will be more in the future.”
- “We saw all the things that didn't work in the Camp Fire and will make sure that those things don't arise in our county in case of a disaster.”
- “In my division 1/2 of my staff of 10 lost their homes. 1 of those 5 never returned. Workload has increased tremendously, and resources have not kept up with the needs. The department as a whole is doing a lot of work that we typically are not involved in and will very little to no additional resources.”
- “Several ways: 1. We have achieved some competency in handling a number of disaster functions, such as mass fatality, mass urban search and rescue, logistical support for a massive disaster, and running a massive missing person investigative unit. 2. Every employee in this department has been affected personally in some way; whether they lost their home, had to move temporarily, had to house evacuees or now have to deal with the lack of affordable housing and traffic issues. Many of our employees and volunteers left the department and the area; this has resulted in many vacancies and recruitment and hiring issues. 3. I suspect this will have psychological impacts to our personnel for the rest of their lives.”

### Role Specific Feedback

The following questions were asked only to those who indicated they filled the specified role.

#### Senior Leadership/Policy Group/Elected Official

##### What were some of the primary outcomes of policy discussions?

- “Urgent ordinance updates and clarification; guidance documents on water quality, re-opening facilities, etc.



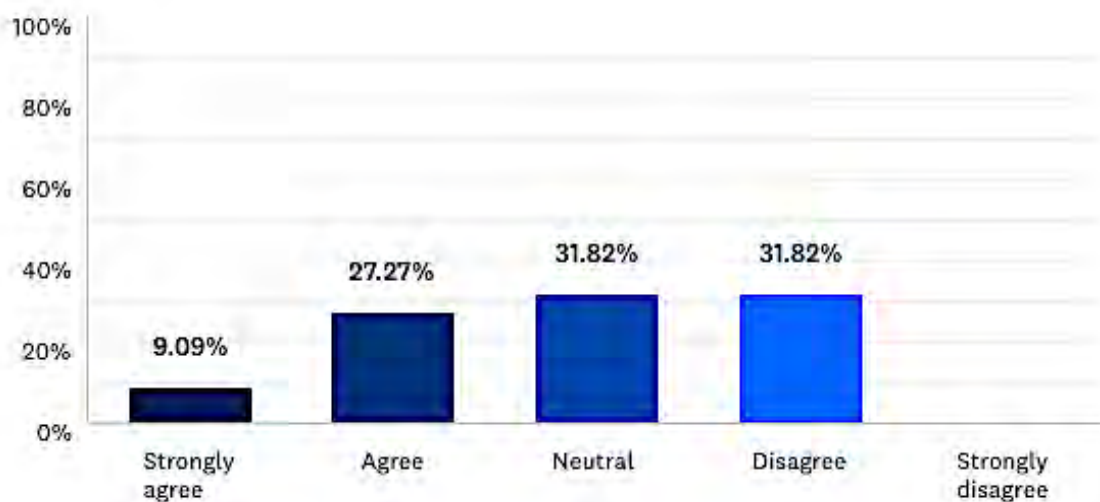


- “The policy discussions/decision that I was a part of pertained to the response and repopulation element and not so much the recovery. Decisions were made, informal policy, if you will, that affected decisions pertaining to response and recovery.”
- “Sheltering, Security, employee safety, debris removal, tree removal, land use urgency ordinances, legislative meetings/requests.”
- “I think the word "policy" discussion is incorrect. The meetings and discussion were geared to response and recovery efforts, not policy per se but rather public safety and operational implementation. Discussions included fire and LE response, search for missing and unaccounted for individual, utility and public infrastructure (make safe) and repopulation.”
- “Command staff and all stakeholders discussed current conditions and any pertinent information related to our respective areas for the entire group to be aware of or offer suggestions.”
- “I scheduled group meetings with the entire command staff on a daily basis during the incident. These group discussions allowed the Sheriff to be informed of the progress of the incident and provide guidance and direction for the next operational period. I think these meetings were critical to the successful outcome of the incident.”

### Emergency Operations Center Staff

## Staffing was adequate within the EOC.

Answered: 22 Skipped: 94

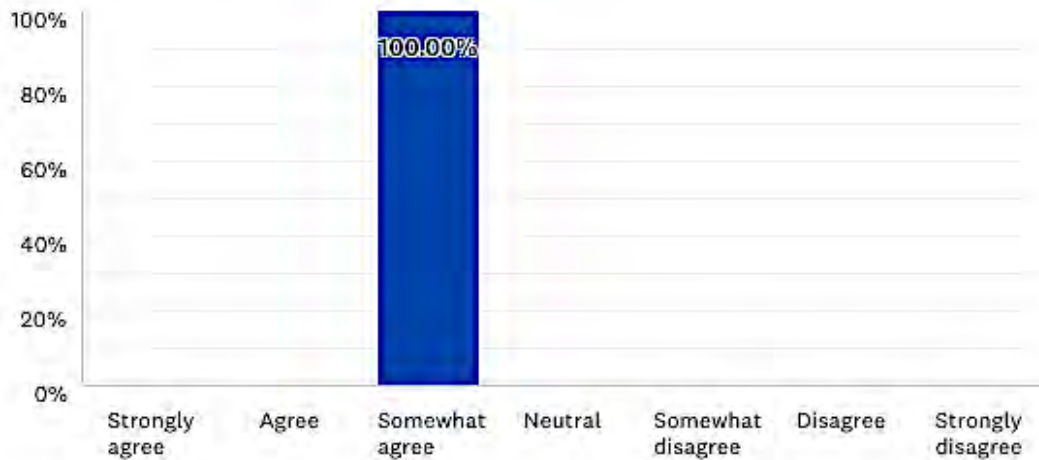




### Joint Information Center Staff

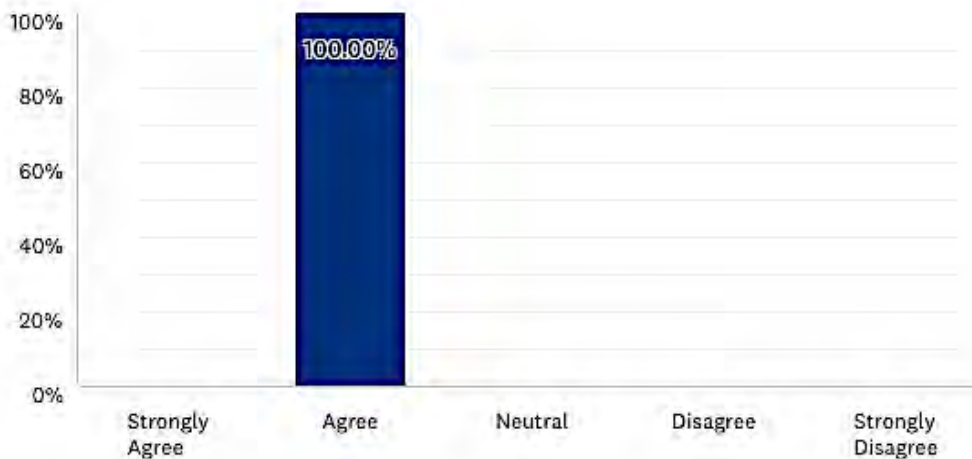
Agencies across the response/recovery effort were united and consistent with their messaging.

Answered: 1 Skipped: 115



The JIC activated quickly and efficiently in response to the Camp Fire.

Answered: 1 Skipped: 115

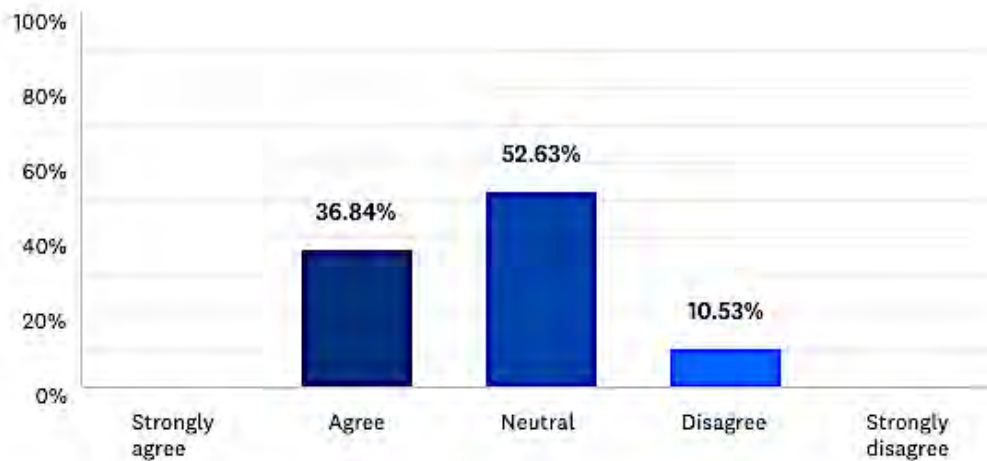




### Public Health Department Operations Center Staff

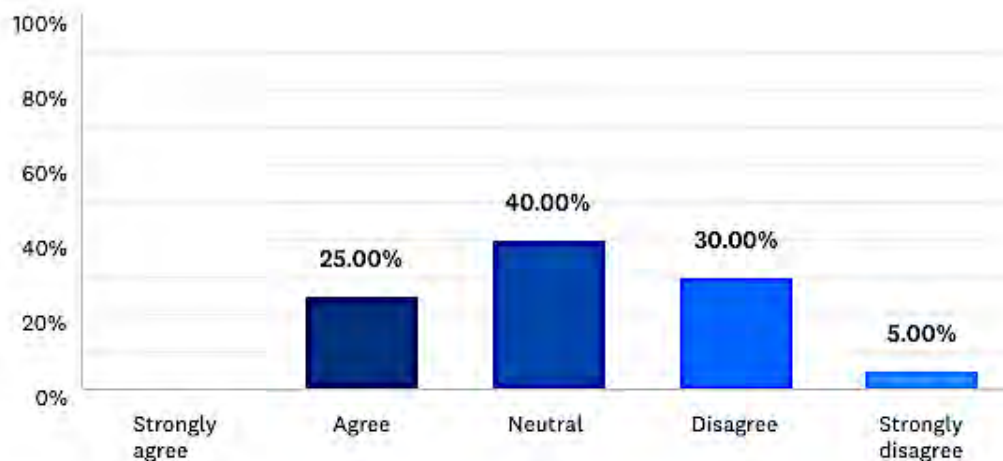
The health and medical resource requesting through the MHOAC program worked well.

Answered: 19 Skipped: 97



Coordination and collaboration with the EOC worked well and assisted with deconflicting any overlapping mutual aid requests.

Answered: 20 Skipped: 96

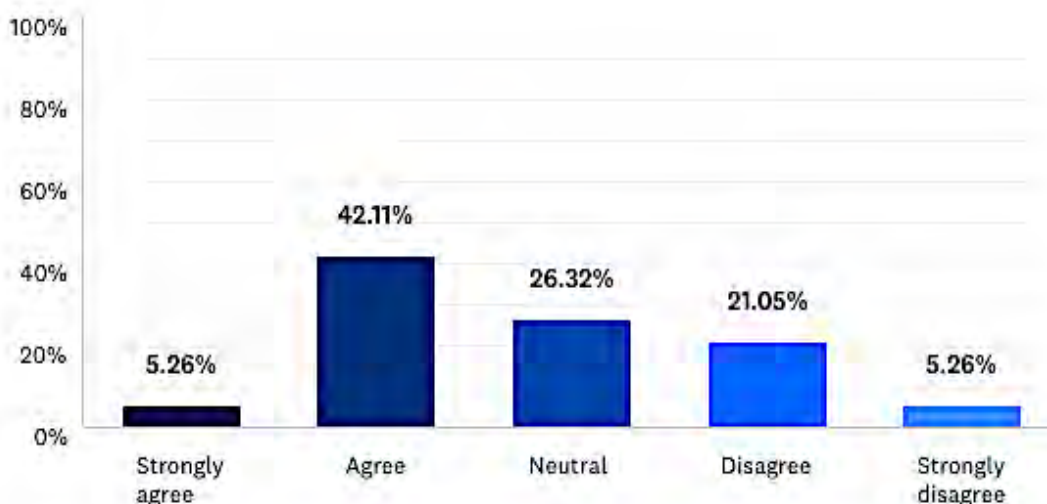




### Field-Level Responder

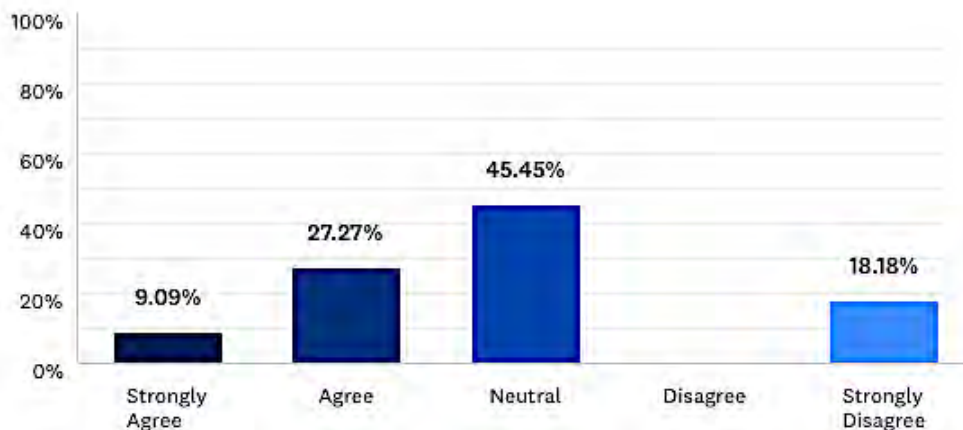
## Staffing was adequate within the BCPH DOC.

Answered: 19 Skipped: 97



When submitting resource requests to the EOC or other mutual aid providers, they were handled efficiently, and I received regular updates.

Answered: 11 Skipped: 105

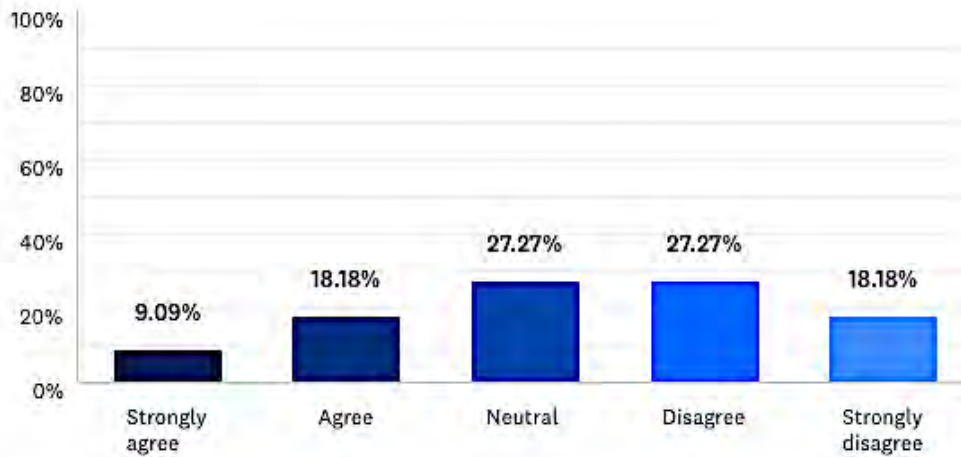




### Medical/Health Field Level Responder

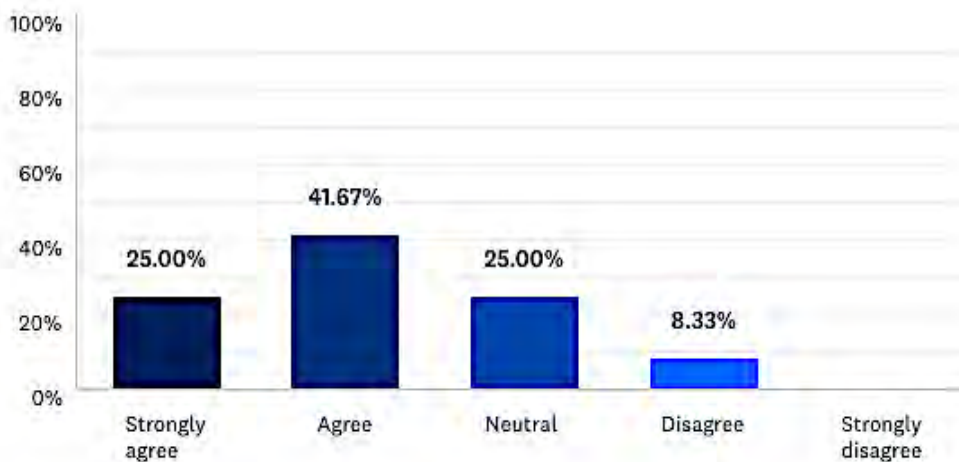
Information was shared quickly and easily between the field, DOCs, the EOC, neighboring jurisdictions, and the State

Answered: 11 Skipped: 105



When submitting resource requests to the DOC, they were handled efficiently, and I received regular updates.

Answered: 12 Skipped: 104

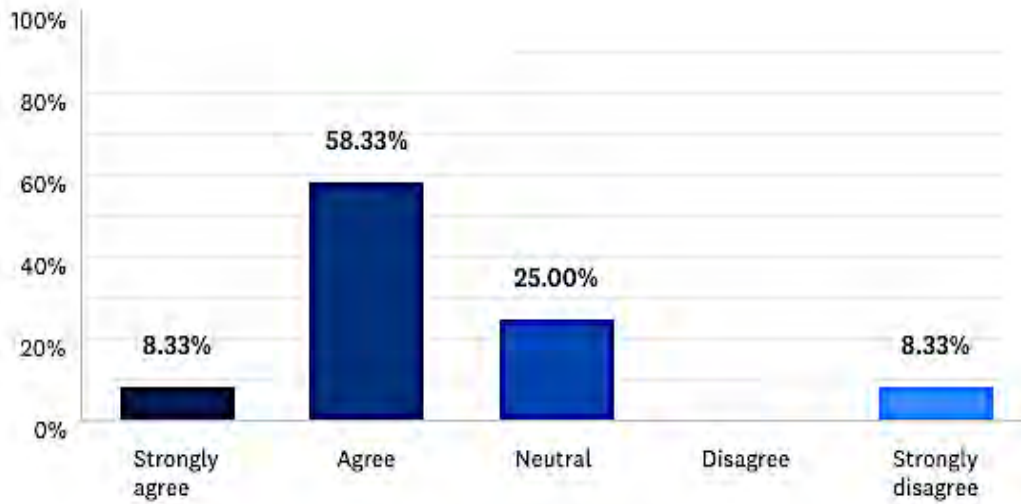






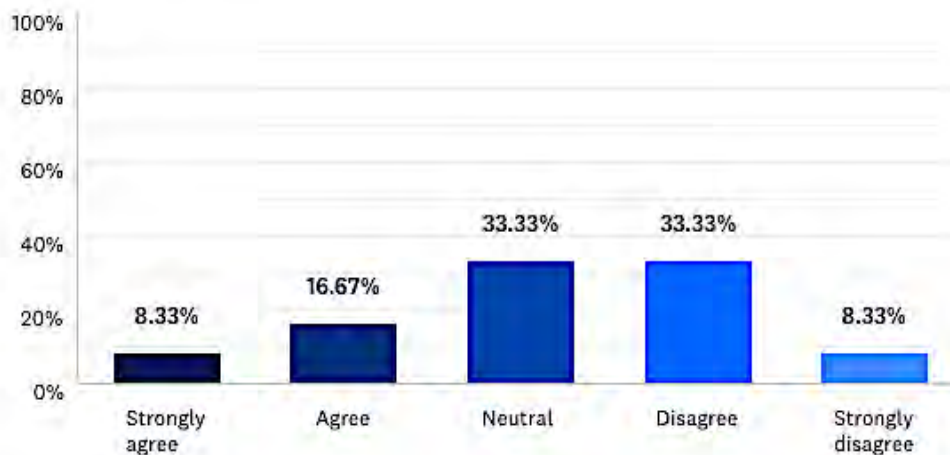
## The resources for my role were adequate and easily procured.

Answered: 12 Skipped: 104



## The chain of command was established and worked efficiently in my role.

Answered: 12 Skipped: 104





## Acronyms

Acronym List	
<i>Acronym</i>	<i>Definition</i>
AAR	After Action Report
ADA	American Disabilities Act
ADRP	Alternate Debris Removal Program
BCAG	Butte County Association of Governments
BCPHD	Butte County Public Health Department**
BCSO	Butte County Sheriff's Office
CAEHA	California Association of Environmental Health Administrators
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Governor's Office of Emergency Services
CalHR	California Department of Human Resources
CalPERS	California Public Employee's Retirement System
CAO	Chief Administrative Officer
CAP	Corrective Action Plan
CDFS	Child Development and Family Services
CHP	California Highway Patrol
CPD	Chico Police Department
CSUPD	Chico California State University Police Department
DAFN	Disabilities and/or access and functional needs
DESS	Department of Employment and Social Services
DOC	Department Operations Center
DRC	Disaster Recovery Center
DROC	Disaster Recovery Operations Center
DROC	Debris Removal Operations Center



Acronym List	
<i>Acronym</i>	<i>Definition</i>
DSW	Disaster Services Worker
EH	Environmental Health
EMMA	Emergency Managers Mutual Aid
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EVC	Emergency Volunteer Center
FAC	Family Assistance Center
GIS	Geographic Information Systems
GPD	Gridley Police Department
GSD	General Services Department
GSDRP	Government-Sponsored Debris Removal Program
ICP	Incident Command Post
IMT	Incident Management Team
IPAWS	Integrated Public Alert and Warning System ***
JIC	Joint Information Center
LAC	Local Assistance Center
MOU	Memorandum of Understanding
NGO	Non-governmental organization
NVADG	North Valley Animal Disaster Group
OEM	Office of Emergency Management
OPD	Oroville Police Department
PDAFN	Persons with disabilities; access and functional needs
PG&E	Pacific Gas & Electric Company
PIO	Public Information Officer



Acronym List	
<i>Acronym</i>	<i>Definition</i>
PPD	Paradise Police Department
PPE	Personal Protective Equipment
REOC	Region Emergency Operations Center
RIMS	Response Incident Management System
ROE	Right of Entry
SEMS	Standardized Emergency Management System
SOC	State Operations Center
SOPs	Standard Operating Procedures
SUV	Spontaneous Unaffiliated Volunteer
UCP	Unified Command Post
uDROC	Unified Disaster Recovery Operations Center
USEPA	United States Environmental Protection Agency