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Recommendations for Wildfire Recovery Planning for the City of Arcata

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Recommendations for Wildfire Recovery Planning for the City of Arcata



A Compilation of Resources, Gaps, and Recommendations

Prepared by:

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Department of Environmental Science and Management Planning and Policy Senior Practicum Class Spring 2019

Mission Statement:

“We are a group of Humboldt State University students dedicated to working collaboratively with the City of Arcata to identify ways to better help the community recover from a wildfire disaster and to improve overall resilience. Our goal is to research, compile, and share existing information on disaster recovery and make recommendations on service gaps in order to aid the city in planning for wildfire recovery.”

Acknowledgements

This project was made possible through interviews with individuals affected by recent fires in California and disaster recovery professionals. A special thank you to Bob Brown who allowed us to collaborate with him in writing a wildfire recovery report for the City of Arcata to utilize. We would also like to thank the City of Arcata officials who had meetings with us to exchange ideas and help round out our report. Lastly, we would like to thank our professor Yvonne Everett for providing us with invaluable guidance and contacts.

Photos courtesy of the Ashcroft Cache Creek Journal (Cover)

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Executive Summary

Western landscapes are experiencing an increased scale and intensity of wildfires, due in part to climate change, fire suppression, and an expanding wildland-urban interface. The damage to human lives and property caused by wildfires has prompted local, state, and federal governments to galvanize planning efforts to help communities better respond to and recover from wildfire. Planning for disasters such as wildfire prior to an event can mitigate the challenges of recovery experienced by those affected. It is important for community members and local jurisdictions to understand recovery needs and plan ahead for recovery to build community resilience.

This report summarizes the need for effective wildfire recovery planning for the case of the City of Arcata, California. The city is currently working on its Hazard Mitigation Plan to be eligible for funding under FEMA hazard mitigation grant programs. This report seeks to inform the city by highlighting the importance of incorporating recovery planning into the Hazard Mitigation Plan. We conducted research to identify current short and long-term resources that exist for the recovery of residents, businesses, and schools. We used that information to identify gaps in the wildfire recovery system and make recommendations to the City of Arcata to improve their Hazard Mitigation Plan.

The short-term recovery needs for residents, businesses, and schools would likely include: utility restoration, expanded social, medical and mental health services, re-establishment of government operations, transportation route restoration, debris removal and clean-up operations, building safety inspections, demolition of hazardous structures, and need for temporary housing and business space. Long-term recovery needs identified in this report for

residents, businesses, and schools included : reconstructed public facilities, coordinated delivery of long-term social and health services, improved land use planning and implementation, an improved Emergency Operations Plan, re-establishment of the local economy to pre-disaster levels, recovery of disaster-related costs, and effective integration of mitigation strategies into recovery planning and operations.

Based on our assessment of wildfire recovery resources, we identified gaps in the wildfire recovery process for residents, businesses, and schools. We found that the City of Arcata lacks a comprehensive plan for debris removal, adequate temporary housing, building inspection and abatement resources, and mechanisms for providing survivors with clear and consistent information. We found that after a disaster, businesses would lack adequate federal and state funding for recovery as well as adequate support at the local level. We found that schools do not have long-term recovery resources for reconstruction, cost recovery, or protection from smoke inhalation. They would benefit from a greater degree of communication with the city.

Based on the gaps in recovery preparedness we had identified, we made recommendations to the City of Arcata for improving planning for the wildfire recovery process. Our recommendations include debris removal planning, creating further options for emergency temporary housing, building relationships with public and private entities, assigning recovery roles and responsibilities, planning for vital records protection and retention, improving methods for recovery information dissemination to the public, and considering the creation of a recovery task force.

The wildfire recovery process is notoriously arduous and distressing for communities. Our goal in drafting this report was to encourage creation of a more comprehensive wildfire recovery system in Arcata to mitigate some of this difficulty should a wildfire affect the City.

Introduction

Wildfire is a natural regenerative process in landscapes in the western United States. In states such as California, ecosystems have evolved with fire as a part of their disturbance regimes. However, fire suppression efforts beginning in the 20th century in combination with a changing climate have affected California's fire regime, leading to more severe and frequent wildfires (Fried et al., 2004). Additionally, both the number of homes in the wildland-urban interface (WUI) and the total footprint of the WUI are growing rapidly and this expansion has led to an increase in the hazard posed by wildfire (Radeloff et al., 2004). Wildfires are of particular interest as hazards due to their unpredictability and potential for destruction. Changing winds and weather patterns make wildfires difficult to predict and control.

Recent events have led scientists and planners alike to agree that California wildfires have increased in both frequency and severity, causing major damage to ecosystems, human lives, and property (Borunda, 2018). In October of 2017 fires in Sonoma, Napa, Mendocino, Butte, Nevada, Yuba, and Orange Counties burned over 200,000 acres and destroyed 8,922 structures. These fires caused approximately \$8.6 billion in property damages and losses, according to insurance claims (California Department of Insurance, 2017). The State of California is still in the process of allocating funding and implementing procedures for recovery in response to these devastating fires (Department of Housing and Community Development, 2019). In 2018 the Camp Fire in Butte County and the Carr Fire in Shasta County were two of the most destructive California wildfires to date. The Carr Fire burned 229,651 acres, destroyed 1,604 homes, and caused 6 casualties (CalFire, 2019). The Camp Fire almost erased the town of Paradise, California. It burned 153,336 acres of land, destroyed 18,804 structures, and resulted in

85 human casualties (CalFire, 2019). The communities affected by these fires have experienced an arduous and distressing recovery process, caused partly by a lack of individual and local government preparation for fires of such a large magnitude. Pre-disaster planning efforts could have mitigated some of this difficulty.

According to the American Planning Association, broad components of disaster management include hazard mitigation, preparedness, response, and recovery. Recovery is the least understood phase, involving a complex management process that includes not only relief and short-term restoration of facilities and services, but also intermediate recovery and long-term redevelopment. Recovery requires sustained commitment over time. Common goals and objectives post disaster are simultaneously restoring housing, transportation, and public services; restarting economic activity; and fostering long-term community redevelopment and improvements (American Planning Association, 2014).

The process of wildfire recovery within communities should incorporate this definition, while also defining recovery in terms that resonate with that particular community. Wildfire recovery will look different in different communities due to their varying needs and values. For this reason, it is important for community members and local jurisdictions to understand recovery needs and plan for recovery before a hazard event occurs. A Local Emergency affecting Humboldt County may be proclaimed by the Board of Supervisors or the Sheriff or their designee when hazardous conditions cause significant damages or pose an imminent threat to people, property, and/or the environment. Proclaiming a Local Emergency can provide the County a pathway to additional resources. Tribes and incorporated cities may independently

proclaim local emergencies, while County proclamations include all cities, regions, and special districts within the Operational Area.

Communities that understand hazard risks and are prepared for recovery will be more resilient in a disaster. According to the National Research Council, resilience is the ability to prepare, plan for, absorb, recover from, and more successfully adapt to adverse events (National Research Council, 2019). Community resilience is an important goal for local jurisdictions because of the serious and complex difficulties they may face as they attempt to restore operations following a hazard event. Practical recovery strategies are needed at the local level for residents, businesses, and schools to ensure resilience in the event of a wildfire. Pre-disaster recovery planning can help to accelerate the recovery process once disaster strikes by defining roles and responsibilities in advance and, through the planning process itself, building the institutional and community awareness and capacity to engage in recovery efforts. Pre-disaster recovery plans, along with other plans, can also provide a strong foundation for post-disaster reconstruction planning and implementation as well as increase resiliency (APA, 2014).

Wildfire Risk in Arcata

Arcata is considered to be at medium risk for wildfire (City of Arcata, 2019). The eastern edges of the city boundary are in the WUI. While Arcata has a moist climate and the predominant vegetation is redwood forest, fire originating further inland in drier forests could spread towards town. According to the CalFire Fire Hazard Severity Zones map, areas directly east of Arcata can be considered at high risk for forest fires (CalFire, 2007). A fire in the surrounding area could impact Arcata through a sudden influx of fire victims, by cutting off the

town from roads and services, and through layers of smoke, and pollutants getting into waterways in the aftermath.

Purpose of Report

The City of Arcata is currently working on updating its Hazard Mitigation Action Plan, the City's chapter of the Humboldt Operational Hazard Mitigation Plan (City of Arcata, 2019). The plan is necessary for Humboldt County to be eligible for funding under FEMA hazard mitigation grant programs. Our report seeks to inform this planning effort by highlighting the importance of including wildfire recovery in the Hazard Mitigation Plan and providing sources of information for the City to consider, such as funding sources at the state and federal level. It is important for local governments to be familiar with state and federal eligibility and reasonable costs guidelines during the planning stage in order to be ready to respond to critical challenges such as contracting, monitoring and preparing appropriate documentation to support requests for funding after a hazard event (California Governor's Office of Emergency Services, 2019). We've prepared this report by examining what resources for post-wildfire recovery are available, what resources are missing, and how the City could address these gaps. Our Practicum Project seeks to answer the question "How can the City of Arcata better help the community recover from wildfire?"

We hoped to better understand what is needed for the facilitation of community recovery from wildfire for the case of the City of Arcata. We analyzed this problem through a systematic process of identifying current organizations that provide recovery resources and then finding gaps where the City could provide more support. We adapted a list of recovery resource categories from San Diego County's Operational Area Recovery Plan and Solano County's

Emergency Operations Plan (San Diego County, 2007; Solano County, 2017). Both plans identify and define short-term recovery and long-term recovery operations. The key objectives of short-term recovery operations are to restore shelter, jobs, services and facilities quickly and efficiently. These plans defined: utility restoration, expanded social, medical and mental health services, re-establishment of government operations, transportation route restoration, debris removal and clean-up operations, building safety inspections, abatement and demolition of hazardous structures and, provision of temporary housing and business space.

The plans indicate that short-term recovery operations for the Operational Area will transition into long-term recovery operations. The primary goal of long-term recovery operations is to rebuild safely and wisely, reducing future hazards and optimizing community improvements. These operations include: reconstructing public facilities, coordinating delivery of long-term social and health services, improving land use planning and implementation, an improved Emergency Operations Plan, re-establishing of the local economy to pre-disaster levels, recovery of disaster-related costs, and effective integration of mitigation strategies into recovery planning and operations. We used these resource categories as a starting point for conducting research on recovery resources for residents, businesses, and schools in the City of Arcata.

We also analyzed recovery resources based on the entities that provided them. These organizations were divided into three categories: local, state, and federal. Local resource providing organizations considered in this report were the City of Arcata, Humboldt County, and Voluntary Organizations Active in Disaster (VOAD), a network of local organizations that provide community assistance in the event of a disaster. We conducted research to determine what resources are provided by the State of California and by the federal government to aid in

recovery. Our research included reviewing planning documents, and conducting interviews with members of communities affected by wildfire and employees of relevant organizations. Our conceptual model of recovery planning (Figure 1) provides an overview detailing this process, and is followed by a more detailed exploration of resources available specifically to residents, businesses, and schools. An additional consideration that influenced the scope of this project was scale. For instance, a local emergency triggers access to different funding and recovery resources than an emergency declared by the Governor of California or a National Emergency.

Our final report consists of an analysis of available resources, identification of gaps where needed services in the event of a wildfire are lacking, and recommendations to the City of Arcata of actions to better facilitate the community’s recovery process.

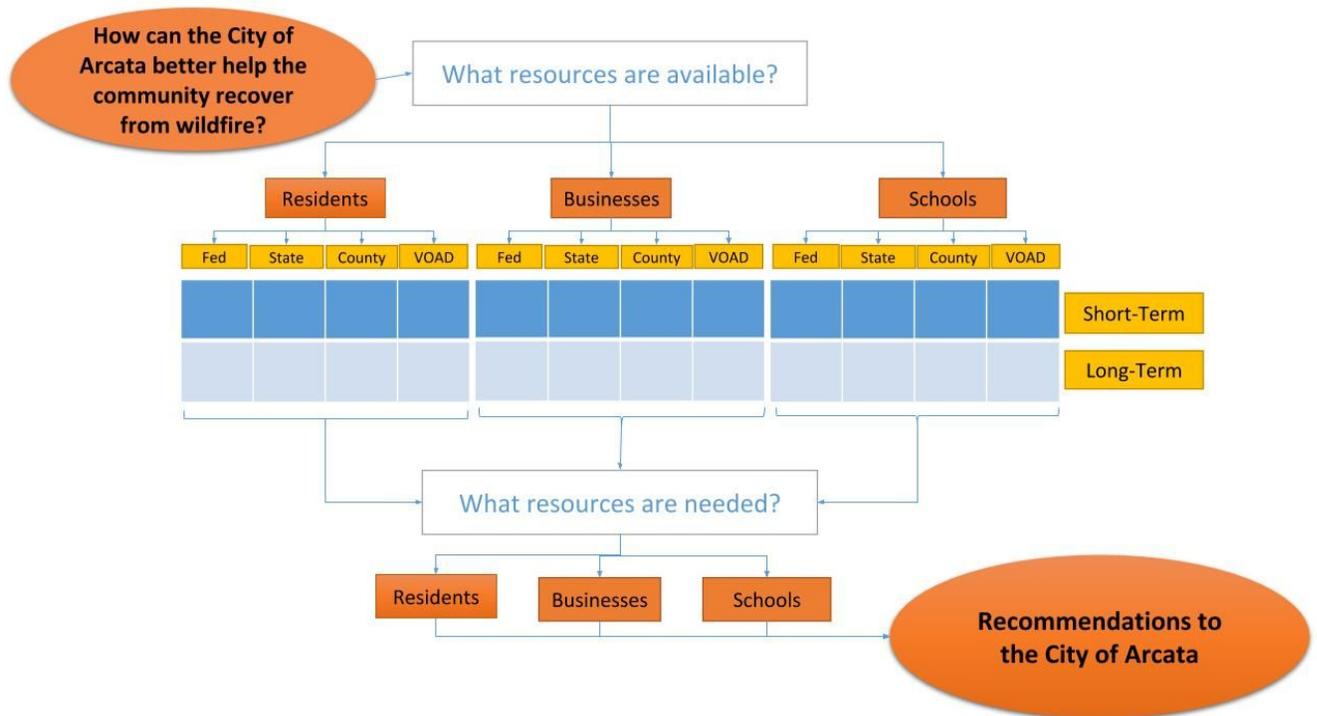


Figure 1. Conceptual Model of Recovery Planning for Residents, Businesses and Schools

We developed a conceptual model to illustrate our process of organizing information for this report. We focused on three categories of survivors based on different needs: residents, businesses, and schools (Figure 1). Within each category, resources available are identified based on who provides them: the Federal Government, the State of California, Humboldt County, and community volunteer organizations. We include a temporal element to indicate when what kinds of aid may be needed most. For example, shelter and food are immediate needs and thus resources providing those are listed under short-term recovery resources. Long-term recovery resources are listed further down. Organizing information in this way is useful for understanding how aid is provided.

Team Objectives

Table 1 below summarizes our goals for this project. For each goal there are nested objectives for how to achieve that goal, and each objective has nested specific actions to be undertaken. It served as a way to guide the development of our report.

Table 1. Project Goals, Objectives and Actions

Goals	Objectives	Actions
Goal 1: Identify and Compile Current Resources	Objective 1: Research and identify current planning documents	Action 1: Review Emergency Operation Plans
		Action 2: Review Shasta, Butte, Trinity, Humboldt and lake counties websites.
		Action 3: Obtain the City of Arcata’s updated HMP
		Action 4: Review and identify federal protocols and

		documents for residents, agriculture, business, and schools.
		Action 5: Review and identify state protocols and documents for residents, agriculture, business, and schools.
		Action 6: Review and identify local protocols and documents for residents, agriculture, business, and schools.
	Objective 2: Identify contacts in relevant federal, state, and local organizations to interview to fill in gaps.	Action 1: Create interview questions.
		Action 2: Contact people to interview
		Action 3: Conduct interviews and compile information.
	Objective 3: Identify and review fact sheets and articles on recovery procedures in order to see what information is available.	Action 1: Identify how to integrate resilience into recovery
		Action 2: Identify funding opportunities/programs/grants (take different classification of disasters in considerations)
		Action 3: Identify infrastructure recovery resources (roads, utilities, buildings).
		Action 4: Debris Removal
	Objective 4: Identify members of communities affected by wildfire who would be willing to be interviewed to find out what .	Action 1: Formulate interview questions
		Action 2: Contact community members and city officials to find volunteers

		Action 3: Conduct interviews and compile information
Goal 2: Identify Gaps in current Recovery Resources	Objective 1: Generate a list of resources available	Action 1: Review research gathered thus far
	Objective 2: Find gaps in Recovery Resources	Action 1: Generate list of gaps found
Goal 3: Make recommendations to the city of Arcata on how to address gaps	Objective 1: Suggest remedies based on gaps found	Action 1: Based on research, make recommendations
		Action 2: Determine feasibility of recommendations (does it fall under City jurisdiction?)
Goal 4: Create a visual aid/final product.	Objective 1: Compile information gathered; i.e. resources, gaps, and information	Action 1: Create Infographic
		Action 2: Create Presentation
	Objective 2: Organizing information in a way that is useful for the City of Arcata to understand and utilize.	Action 1: Create report
		Action 2: Make bibliography

Available Recovery Resources

In analyzing how the City of Arcata can help residents, businesses, and schools recover from a wildfire event, we first reviewed existing recovery resources. We identified categories of available short-term and long-term recovery resources, and conducted research to compile a comprehensive list of existing resources within these categories. We also looked at available resources in terms of the entities (local, state, and federal) that provide those resources (Appendix A).

Available Recovery Resources for Residents

In wildfire events, residents are hit the hardest in terms of damage to livelihoods and difficulty with recovery. Residents are the most integral part of a community, and a recovery process must consider their needs. We identified the current resources available to help community residents recover from a wildfire event in the City of Arcata.

Short-term Recovery Resources for Residents

Based on the resources from the San Diego County's Operational Area Recovery Plan and Solano County's Emergency Operations Plan (San Diego County, 2007; Solano County, 2017), the short-term recovery needs of residents are: utility restoration, expanded social, medical and mental health services, finances, transportation route restoration, debris removal, building safety inspection, demolition of hazardous structures, and temporary housing.

Local (VOAD, City, County)

Residents are expected to, whenever possible, provide for themselves following a disaster using personal finances, and community volunteer organizations (Humboldt County, 2015). For this reason, we identified local resources as of primary importance in the recovery process. Local resources become available at any level of emergency, so it was important to first understand the role and capacity of local entities in wildfire recovery. Short-term recovery resources and the local agencies that provide them are listed as follows:

Utility Restoration:

is restoration of utilities. Restoration of utilities is an immediate need for residents' recovery process following a wildfire and at the local level is provided by the following entities:

City of Arcata

The City of Arcata Department of Environmental Services, Streets and Utilities Division is responsible for street construction and maintenance, water distribution and maintenance, wastewater collection, confined drainage ways, and traffic control.

PG&E

Pacific Gas and Electric is responsible for restoring gas and electricity for facilities it provides those utilities to (PG&E, n.d.).

RCEA

Redwood Coast Energy Authority is responsible for restoring electricity for facilities it provides energy resources to.

Recology

Recology collects and processes municipal solid waste for the City of Arcata. The company accepts drop offs of various hazardous waste items as well as non-hazardous waste (Recology Arcata, 2019).

AT&T (Pacific Bell)

Communication services, AT&T's National Security Emergency Preparedness (NSEP) disaster prevention, response and recovery program outlines strategies and procedures that insure the company's ability to plan for, respond to and recover from emergencies or disasters. (San Diego, 2007)

Suddenlink

Suddenlink Communications is an American telecommunications subsidiary of Altice USA which specializes in cable television, high-speed internet, broadband phone, home security and advertising (Suddenlink Communications, 2019). Suddenlink provides these services within the City of Arcata and would be responsible for restoring its infrastructure.

Expanded Social, Medical and Mental Health Services

In an emergency situation, social, medical, and mental health services will need to be expanded to deal with the influx of individuals experiencing physical injuries, psychological distress, loss of livelihood, and loss of community. These services are provided at the local level by the following entities:

Humboldt County Department of Health and Human Services

Public Health Unit: Environmental Health

Identifies all potential public health hazards during an emergency and coordinates the response to those hazards.

Mental Health Unit:

Assesses mental health and coordinates mental health related response activities during an incident.

Social Services Unit: Employment Training

SSU is responsible for coordinating care and shelter of the public during an emergency. The Unit coordinates the response efforts of agencies such as the American Red Cross and other Voluntary Organizations Active in Disaster

(VOAD) to ensure maximum response capabilities are achieved and that shelters meet the requirements of the Americans with Disabilities Act (ADA).

NorCal VOAD

VOAD is an association of organizations and their government partners that provide disaster-related services to residents throughout the 48 northernmost counties in the state. It also serves as a convening body for local VOADs in the region. Members of VOAD include local non-profit organizations that are mobilized following a disaster to help provide emergency food, shelter, clothing, communications, counseling, and volunteer personnel. They help to deliver services to populations affected by the disaster, and may also raise money and access resources from the private sector for emergency needs (Humboldt County, 2015). Some partners of VOAD in the Humboldt region include:

American Red Cross:

The American Red Cross (ARC) of California Northwest leverages the power of volunteers and generosity of donors to prevent and alleviate human suffering (American Red Cross, 2019). They indicate that strong community support enables them to provide lifesaving training, relief to those affected by disasters, and empowers individuals in the communities they serve to prepare for, respond to, and recover from emergencies. The ARC provides for the critical needs of individuals such as emergency shelter, tents, buildings, food, resources, care, comfort kits for personal hygiene, and appropriate financial assistance. They also link children and parents to housing assistance, social services, and mental health services to help assist with the devastating loss of their homes, belongings, pets, and loved ones (American Red Cross, 2019).

Redwood Community Action Agency:

The Redwood Community Action Agency (RCAA) equips low-income citizens with the tools and potential for becoming self-sufficient (Redwood Community Action Agency, 2019). The structure of their program is unique – federal dollars are used locally to offer specialized programming in communities. It is a coordinated effort to address the root effects of poverty and to, ultimately, move families and individuals to self-sufficiency (Redwood Community Action Agency, 2019).

Arcata House Partnership:

Arcata House provides critical services to people who are homeless in Arcata and Humboldt County. Services include: housing search and application assistance, address services, CalFresh application assistance, case Management, clothing, food, homeless court, hygiene supplies (including feminine products), ID help, resume writing and job search assistance, SSI/SSDI application assistance, showers by appointment (Arcata House Partnership, 2019).

Salvation Army:

The core of the Eureka Salvation Army disaster program consists of several basic services. While these services address many of the typical needs of a disaster survivor, Salvation Army disaster relief is also flexible. Their services are adapted to the specific needs of individuals and communities, and are scalable according to the magnitude of the disaster. Services include: Immediate Emergency Response and Spiritual and Emotional Care (Salvation Army Eureka Corps, 2019)

Faith-based Organizations:

Faith-based organizations such as Adventist Community Services, Arcata United Methodist Church, and Lutheran Church of Arcata provide a variety of disaster-related services to victims and disaster workers to aid in personal recovery or relief operations (VOAD, 2012).

Food for People:

In the event of a disaster, Food for People will take a leading role in the procurement, storage and distribution of food in affected areas around Humboldt County. Through partnership with other local nonprofit organizations, and with the assistance of the Humboldt County Office of Emergency Services (HCOES), Federal Emergency Management Agency (FEMA), American Red Cross and Feeding America (the organization that governs food banks nationwide), Food for People will be responsible for obtaining and directing food resources countywide. In addition, they will provide a facility where donations of food and funds can be collected, sorted and disseminated appropriately (Food for People, 2019).

Finances:

Individuals may be eligible for loans or grants for repair or replacement of structures and personal property; and dental, funeral, medical, transportation, unemployment, sheltering and rental assistance, counseling, and legal assistance, depending on the extent of damages and the availability of funding following a disaster (Humboldt County, 2015).

Humboldt County Office of Emergency Services (OES):

Individuals are expected, whenever possible, to provide for themselves and to be responsible for their own personal recovery following a disaster. However, many will expect comprehensive assistance from government entities in the immediate aftermath and until all needs are met. Humboldt County and local city governments will assist individuals to the extent possible, including connecting them to available state and federal resources. The objective of Humboldt County, the Operational Area, and local cities is to provide local communities with the necessary information to aid in individual disaster recovery, including the establishment Local Assistance Centers (LAC) when appropriate (Humboldt County, 2015). Local Assistance Centers or Disaster Recovery Centers are established by the California Governor’s Office of Emergency Services (Cal OES). They provide a central location for government services for affected victims (California Wildfire Recovery Services, n.d.).

Humboldt County Disaster Assistance for Nonprofits Fund:

The Humboldt County Disaster Assistance for Nonprofits Fund (DANF) accepts funds from the local community and elsewhere during declared disaster events and then distributes those funds within Humboldt County (Humboldt County, 2015).

Transportation Route Restoration:

Wildfires, when entering an urban environment, have the potential to damage transportation routes including municipal roads. These facilities are necessary for transporting people, goods, and aid resources in communities. Restoration of roads is provided locally by the following entities:

City of Arcata - Streets and Utilities Division:

The Streets and Utilities Division is responsible for street construction and maintenance and traffic control (City of Arcata, n.d.).

Debris Removal:

Debris removal is a critical part of recovering from a wildfire. Structures destroyed by fire can cause problems such as chemicals leaching into waterways and dangerous working conditions for professionals related to the reconstruction of homes and other structures. Local debris removal can be provided through the following businesses:

Recology Arcata:

Recology is an integrated resource recovery company with locations throughout the West Coast. Recology Arcata provides services such as hazardous waste removal and debris boxes (Recology, 2019). Debris boxes, or dumpsters, are best used for medium to large projects like construction and demolition and residential clean-ups. (Recology, 2019).

Humboldt Waste Management Authority

Residents may drop off accepted items at the Humboldt Waste Management Authority Household Hazardous Waste Facility in Eureka (Humboldt Waste Management Authority, 2019).

Building Safety Inspections:

The City of Arcata employs one building safety inspector. During times of increased need, the city would need to hire private contractors.

Demolition of Hazardous Structures:

There are no formal local resources available for repair and/or demolition of hazardous structures following a wildfire. This would likely be undertaken in response to complaints with the City of Arcata and property owners hiring private contractors to carry out tasks.

Temporary Housing:

In the event of destruction of homes following a wildfire, there will be a need for residents to secure temporary housing while they rebuild or relocate. Temporary housing services are provided at the local level by the following entities:

Arcata House Partnership:

Arcata House has a twenty bed shelter facility for men and women in Arcata. Check-in and intakes take place at the bus annex at 2:30 p.m. Dinner, breakfast, and 15 minute showers are available for those staying the night. Clients are asked to do chores (Arcata House Partnership, 2019).

Betty's Village

Betty's Village is a temporary transitional shelter located on Washington Street, at the DHHS Koster Campus in Eureka. The shelter serves up to 40 adult individuals at any one time, along with their pets. Mobile Medical is offered at the location on Mondays (Betty Kwan Chinn Homeless Foundation, 2019).

Eureka Rescue Mission Men's Program:

The doors of the Mission are opened each evening at 5:30 p.m. Clients must be sober, male, over the age of 18, and possess valid photo id. Breathalyzer tests are used to test for

sobriety. The Mission coordinates emergency weather shelter activities in Eureka (Eureka Rescue Mission, 2013).

Eureka Rescue Mission Women & Children's Program:

The Women & Children's Shelter provides a sober, structured environment. An interview and picture ID are required to utilize services at the shelter. Clients must be sober, female with or without kids the age of 12 years and under, and possess valid photo identification. Breathalyzer tests are used to test for sobriety (Eureka Rescue Mission, 2013).

McKinleyville Family Resource Center - Extreme Weather Shelter:

The extreme weather shelter opens for dinner and showers, after which people are transported to church locations for overnight stay (McKinleyville Family Resource Center, 2019).

North Coast Veterans Resource Center (HCHV) (Emergency Housing):

NCVRC operates a fifteen-bed Health Care for Homeless Veterans (HCHV) behavioral health program. In total, NCVRC is able to provide temporary housing and services to fifty homeless veterans (Veterans Resources of America, 2019).

Humboldt County Red Cross chapter

The Red Cross is responsible for housing and feeding displaced citizens during times of emergency. Small numbers of people are usually housed in local hotels and motels.

When there are a large number of people requiring services, the Red Cross opens shelters upon the request of the Humboldt County Office of Emergency Management (American Red Cross, 2019).

Table 1: List of Hotels and Motels in the surrounding areas in case of evacuation.

Hotels and Motels		
Arcata, CA	Eureka, CA	Humboldt Bay
Days Inn and Suites	Travelodge	Clarion Hotel
Best Western	Americans Best Value Inn and Suites	Rodeway Inn
Hampton Inn and Suites	Days Inn	
Comfort Inn	Town House Motel	
Motel 6	Quality Inn	
Red Roof Inn	Bayview Motel	
Super 8	Best Western Plus	
Ramada	Comfort Inn	
Fairwinds Motel	Red Lion	

State

In larger disaster situations where there are conditions of extreme peril to the safety of persons and property, the Governor of California has the power to declare a State of Emergency (Government Code 8558(b)). This is done when there are conditions likely to be beyond the control of any single county or city (Baldrige, n.d.). In the event of a disaster declared by the Governor, state resources for residents become available. This opens new funding opportunities and resources to aid in residents’ recovery processes. In these situations, state entities provide the following short-term recovery resources:

Utility Restoration:

In major disaster situations, damage to utilities is likely to be beyond the scope of local organizations to repair. In the event of a wildfire declared a disaster by the Governor of California, the following state agencies become active in providing funding and resources for the restoration of utilities:

California Utilities Emergency Association (CUEA)

The CUEA was created by a Joint Powers Agreement to represent California utilities on emergency related issues (CUEA, 2016).

California Department of Transportation (CALTRANS)

CALTRANS provides reports and estimates on state roads, highways and freeways, including all overpasses, underpasses and bridges (CALTRANS, 2018).

California Highway Patrol (CHP)

Provides initial reports on damage to roads, highways and freeways. Coordinates with CALTRANS and local jurisdictions as applicable to barricade or secure unsafe sections of roadway. Monitors truck traffic to ensure safe transport of debris during debris removal and demolition operations (CHP, 2019).

Expanded Social, Medical and Mental Health Services:

In the event of a large wildfire declared a disaster by the Governor of California there will likely be a large number of individuals in need of social, medical, and mental health services. In these situations, local jurisdictions may lack funding and staff to provide these services and state agencies become active. The following state agencies provide expanded social, medical, and mental health services in the event of a State of Emergency:

California Department of Motor Vehicles - Record Replacement Assistance:

The California Department of Motor Vehicles (DMV) can respond to questions and provide the forms needed to assist individuals in replacing DMV documents, such as drivers licenses, identification cards, vehicle cards certificates and certificates of title, that were lost as a result of the disaster.

California Department of Public Health - Vital Records:

The California Department of Public Health (CDPH) works with those who have lost vital records as a result of a disaster. Birth, death, and marriage records should be requested from the county recorder's office in the county where the event occurred.

Finances:

Individuals are expected to rely on personal finances whenever possible to recover from disaster (Humboldt County, 2015). This imposes a great financial burden on residents attempting to recover from a wildfire. Assistance with recovery of financial investments is provided at the state level by the following entities:

California Department of Insurance:

The California Department of Insurance is charged with overseeing insurance regulations, enforcing statutes mandating consumer protections, educating consumers, and fostering the stability of insurance markets in California (California Department of Insurance, 2019). Statutes the departments enforce include:

AB 1799 (Chapter 69, Statutes 2018): requires that insurance companies provide standardized information to wildfire victims after they have suffered a loss, including information on the coverage they have paid for, their full insurance policy, endorsements, and their declaration page to better inform wildfire victims.

AB 1797 (Chapter 205, Statutes 2018): requires that insurers writing residential property insurance conduct a replacement cost estimate on an every-other year basis. This would ensure policy holders are covered with current and timely estimates that accurately reflect their property's value.

California Employment Development Department (EDD):

The California Employment Development Department (EDD) provides a variety of services to individuals and businesses affected by disasters in California. EDD staff located throughout the state are often called upon to lend a hand at Local Assistance Centers or Disaster Recovery Centers established by the California Governor's Office of Emergency Services (Cal OES) or federal authorities. EDD also administers the Disaster Unemployment Assistance program (DUA) on behalf of FEMA, provides temporary unemployment benefits to jobless workers and self-employed people whose jobs or work hour losses are a direct result of the wildfires. In California, the process for filing DUA claims is the same as for regular claims. When applications are received, EDD first reviews the application to determine if the individuals qualify for regular state unemployment insurance. If individuals qualify for regular state benefits, they move on through that process. If individuals do not qualify for regular unemployment insurance or disability insurance, then EDD will determine eligibility for disaster unemployment benefits (California Employment Development Department, 2019).

Transportation Route Restoration:

Soil destabilization following a wildfire threatens the integrity of road systems. A major threat to road networks are landslides that occur when large wildfires are followed by rain. Major highways such as the US 101 and SR 299, which serve Arcata could potentially be threatened by destabilization and landslides. CALTRANS and the CHP would be responsible for management and restoration of these routes (CALTRANS, 2018; and CHP, 2019)

Debris Removal:

A large fire is likely to be very destructive, creating a large amount of debris. Local resources are likely to be insufficient for debris removal in these cases due to the possibilities of having lack of equipment to remove the waste and the lack of storage facilities to keep it. In the event of a large fire, a state of emergency may be declared. In the event of a state of emergency, the following state entities would aid in the debris removal process:

California Department of Toxic Substances Control (DTSC):

DTSC assists local, state, and federal agencies after major disasters, including wildfires and flooding, to remove household hazardous waste and other harmful substances such as e-waste found on parcels and properties (Department of Toxic Substances Control, 2019). In the event of a state of emergency, a debris removal program managed by DTSC occurs in two phases: 1) removal of household hazardous waste and 2) removal of other fire-related debris (CalRecycle, 2019).

CalRecycle:

CalRecycle is often tasked with overseeing and managing contractors and consultants to conduct local debris removal operations, including the removal of wildfire ash, debris, and contaminated soil, at no out-of-pocket cost to property owners. The state is currently working on strategies for fire debris removal. After recent wildfires, CalRecycle has used large general contractors, who use subcontractors to complete the work. CalRecycle maintains a list of contractors interested in fire debris removal work, which is available to all general contractors and subcontractors. Homeowners who choose to participate in the debris removal phase of a state-managed cleanup program are required to return signed

Right of Entry forms to their local governments (CalRecycle, 2019). Property owners who desire to search debris from their properties for possible salvageable items, should do with caution and appropriate protective gear: eye protection, masks, and gloves (California Governor's Office of Emergency Services, 2019).

Building Safety Inspection:

Buildings must be inspected to determine if they are safe to reenter after fire damage occurs. Buildings left standing must be approved by an inspector prior to any actions taken to re enter or repair the structure. The City of Arcata may contract out such services to private or state agencies. The following state agencies can assist with building safety inspection should the need arise:

CalOES Post-Disaster Safety Assessment Program:

Managed by Cal OES, the Safety Assessment Program (SAP) utilizes volunteers and mutual aid resources to provide professionally registered engineers and licensed architects and certified building inspectors to assist local governments in safety evaluation of their built environment in the aftermath of a disaster (California Governor's Office of Emergency Services, 2019).

California Building Officials (CALBO) :

California Building Officials is a non-profit corporation dedicated to promoting public health and safety in building construction through the promotion of responsible legislation, education, and building code development (California Building Officials, 2019).

Demolition of Hazardous Structures:

There are no formal state resources available for demolition of hazardous structures following a wildfire.

Temporary Housing:

In a large emergency, the influx of people in need of temporary housing is likely to exceed what local resources can provide. In these situations, the following state agencies can become active in providing temporary housing:

[Cal OES and FEMA Housing Task Force 2017 - California Wildfire Recovery Housing Support Plan:](#)

The State of California and the Federal Emergency Management Agency (FEMA) created a Housing Task Force to facilitate communication and collaboration at the state and federal level in support of local jurisdictions, which will be reflected in the housing support plan (Cal OES, 2017).

[California Department of Community Services and Development \(CSD\)](#)

[Community Services Block Grant \(CSBG\):](#)

California Department of Community Services and Development (CSD) partners with private non-profit and local government organizations dedicated to helping low-income individuals and families achieve and maintain economic security, meet their home energy needs, and reduce their utility costs through energy efficiency upgrades and access to clean renewable energy.

The Community Services Block Grant (CSBG) is designed to provide a range of services to assist low-income families and individuals attain the skills, knowledge, and motivation

necessary to achieve self-sufficiency. CSBG supports a broad range of locally determined services, including employment services, education, income support/management, housing, emergency services, health, and nutritional services, among others. CSBG funding also enables local community organizations to develop long range solutions to revitalize low-income communities, reduce poverty, and develop public/private partnerships (California Department of Community Services and Development, 2015).

California Department of Social Services (CDSS) State Supplemental Grant Program (SSGP):

The California Department of Social Services (CDSS) State Supplemental Grant Program (SSGP) provides funds to assist people who have suffered damage from a federally declared disaster. “Federally declared” means that a state governor has requested and received from the President of the United States a declaration that a disaster situation exists which triggers the implementation of individual assistance programs. To be eligible for SSGP assistance, applicants must have applied to the Federal Emergency Management Agency (FEMA) and have received the maximum grant from FEMA’s Individuals and Households Program (IHP). Applications that have reached the maximum IHP grant will be automatically transmitted from FEMA to SSGP for processing. There is no separate application process for SSGP. SSGP uses information obtained by FEMA and follows FEMA guidelines to determine SSGP grants. SSGP may make a grant equal to the difference between the federal (IHP) grant awarded and the federally eligible appraised loss, not to exceed ten thousand dollars (\$10,000) per individual or household. SSGP can not duplicate other assistance received from any

governmental agencies or personal insurance (California Department of Social Services, n.d.). Eligible items covered under the SSGP may include: rental assistance, housing, personal property, medical or dental, moving and storage, transportation, and funeral.

Federal

In order to trigger federal support, a governor has to request help from the President and the President can then declare a State of Emergency.

Utility Restoration:

Based on our research, we concluded that utility restoration was provided at the local and state level. No current federal avenues for utility restoration are in place.

Expanded Social, Medical and Mental Health Services:

In the presence of an emergency, there are many resources available to help aid people along in the recovery process. Some of these include:

Disaster CalFresh:

Disaster CalFresh (known as Disaster SNAP or D-SNAP at the federal level) provides temporary food assistance for households affected by a natural disaster. It provides one month of benefits to eligible disaster survivors and can facilitate the issuance of ongoing supplemental benefits for households. People who are not usually eligible for CalFresh can qualify for Disaster CalFresh if they meet the criteria below. This includes people receiving Social Security Income (SSI). The State and affected counties work together to apply to the USDA for Disaster CalFresh when the President has declared a “Major Disaster”.

Disaster CalFresh timing varies with the unique circumstances of each disaster, but always begins after commercial channels of food distribution have been restored, and

families are able to purchase and prepare food at home. In some cases resources might be focused on congregate meal sites and emergency food distribution, if there isn't a way for survivors to access grocery stores and/or prepare food at home. Before operating Disaster CalFresh, a State will ensure that proper public information, staffing, and resources are in place (Food for People, 2019).

Finances:

The Robert T. Stafford Disaster Relief and Emergency Assistance Act authorizes the President to provide Federal assistance when the magnitude of an incident or threat of an incident exceeds the affected state, local, tribal, and territorial government's capability to respond or recover. For FEMA to provide assistance, the President must declare that an emergency or major disaster exists (FEMA, 2019).

In this section, we will focus on types of assistance including; Individual Assistance, Disaster Housing Assistance, Disaster Grant, Federal Disaster Unemployment Assistance, Insurance, and Low-Interest Disaster Loans.

Individual Assistance:

Through the Individual Assistance (IA) programs, FEMA provides direct assistance to individuals and households, as well as SLTT government to support individual survivors. These programs are designed to help meet disaster applicants' sustenance, shelter, and medical needs during their path to recovery (FEMA, 2019).

Disaster Housing Assistance:

Disaster housing may be available through FEMA for up to 18 months, using local resources, for displaced persons whose residences were heavily damaged or

destroyed. Funding can also be provided for housing repairs and replacement of damaged items to make homes habitable. The first step when applying for HA is for disaster survivors to register with FEMA and have an application for disaster assistance completed. This may be done online or over the phone. At that time, applicants are asked if their home was damaged. If their home was damaged, an inspector goes out to look at the home, determines whether the home is habitable, and records the damages to both real and personal property. Habitability involves making the primary residence safe, sanitary and functional. If the home is not habitable and the applicant does not have insurance, the application is sent for housing assistance processing. Thereby, the applicant may be found eligible for home repairs, as well as temporary assistance, such as Rental Assistance (RA) and Lodging Expense Reimbursement (LER) (FEMA, 2019).

Disaster Grants:

Disaster grants are available to help meet other serious disaster related needs and necessary expenses not covered by insurance and other aid programs. These may include replacement of personal property, and transportation, medical, dental, and funeral expenses (FEMA, 2019).

Federal Disaster Unemployment Assistance (DUA):

The Disaster Unemployment Assistance (DUA) program provides unemployment benefits to individuals who have become unemployed as a direct result of a Presidentially declared major disaster.

In order to qualify for this benefit, a survivor's employment or self-employment must have been lost or interrupted as a direct result of a major disaster declared by the President of the United States. A person must have been determined not otherwise eligible for regular unemployment insurance benefits under any state or Federal law.

Payment will be made to an unemployed worker, who as a direct result of a Presidentially declared major disaster; "no longer has a job, is unable to reach their place of work, cannot work due to damage to the place of work, becomes the head of the household and is seeking work because former head of household died as a result of the disaster, and cannot work because of a disaster-incurred injury" (Disaster Unemployment Assistance, 2019). In the event of a disaster, the affected state will publish announcements about the availability of Disaster Unemployment Assistance. To file a claim, individuals who are unemployed as a direct result of the disaster must contact their State Unemployment Insurance agency.

Individuals who have moved or have been evacuated to another state should also contact the state agency. Applications for Disaster Unemployment Assistance (DUA) must be filed by an individual within 30 days of the announcement of the availability of DUA in the state.

Individuals must follow the instructions in the announcement and file for DUA based on the filing methods used by the state. They can do this in person or by mail, telephone, or internet (U.S. Department of Labor, 2015).

Low-Interest Disaster Loans:

Loans may be available after a disaster for homeowners and renters from the U.S. Small Business Administration (SBA) to cover uninsured property losses. Loans may be for repair or replacement of homes, automobiles, clothing or other

damaged personal property. Loans may also be available to businesses for property loss and economic injury (U.S. Small Business Administration, 2019).

Debris Removal:

U. S. Army Corps of Engineers:

In disasters, many federal, state and local agencies rely upon the U.S. Army Corps of Engineers to provide an extensive range of expertise including debris management.

Under its current mission assignments from FEMA, USACE is assisting with the design for temporary housing sites for residents displaced by the 2018 Northern California fires. USACE is also developing plans for a temporary debris handling facility that will support the State's debris removal efforts by staging, reducing and transporting non-hazardous material such as concrete and metal for recycling and disposal (U.S. Army Corps of Engineers, 2018).

Building Safety Inspection:

Our research concluded that currently no federal resources exist for aiding in building safety inspections, though those with damaged homes applying for FEMA Disaster Housing Assistance will receive an inspection in due time.

Abatement and Demolition of Hazardous Structures:

FEMA Emergency Work Assistance:

Demolition of disaster-damaged structures may be eligible for emergency work assistance, if the work is necessary to:

- Eliminate an immediate threat to lives, public health, and safety.
- Eliminate immediate threats of significant damage to improved public or private property.
- Ensure the economic recovery of the affected community to the benefit of the community-at-large.
- Mitigate the risk to life and property by removing substantially damaged and associated debris as needed to convert property acquired through a FEMA hazard mitigation program to uses compatible with open space, recreation, or wetlands management practices.
- Removal of slabs or foundations and covering of pads and driveways that do not present a health or safety hazard, except for structures in a FEMA funded buyout program, is not eligible for reimbursement. As with PPDR, demolition of private structures requires approval by FEMA prior to start of work and appropriate agreements with local governments to hold the Federal government free from damages due to performance of the work must be in place. Demolition also requires condemnation by an authorized local official in accordance with State and local law. (County of San Diego, 2007, 5-13,14).

Temporary Housing:

U.S. Department of Health and Human Services - Low-Income Home Energy Assistance Program (LIHEAP):

The U.S. Department of Health and Human Services' Low-Income Home Energy Assistance Program (LIHEAP) program provides disaster services to low-income households through the Severe Weather Energy Assistance and Transportation Service (SWEATS) service component. CSD automatically activates SWEATS services in response to declared disasters within the State, with services being delivered by local service providers within the impacted community. Housing Support Plans for 14 California Wildfire Recovery SWEATS funds additional LIHEAP services that include: supplemental utility assistance, vouchers for temporary housing, transportation, portable generators, portable heating and cooling appliances, and items such as coats, blankets and sleeping bags. The SWEATS program was activated to assist low-income households impacted by the 2018 fires in Northern California. CSD's local service providers in Yuba, Sonoma, Napa, Lake and Mendocino counties have advised CSD they intend to use SWEATS services to provide temporary housing, generators, sleeping bags and blankets, and utility assistance to low-income households. Local service providers had not reported the value and use of SWEATS when our report for Arcata was compiled, but USDHHS indicated that that SWEATS services would be ongoing during recovery efforts (U.S. Department of Health and Human Services, n.d.).

Federal Emergency Management Agency (FEMA) - Individual and Households Program (IHP):

The Individual and Households Program (IHP), a program under FEMA Individual Assistance, provides financial assistance and direct services to eligible disaster survivors and households. IHP is not a substitute for insurance and cannot compensate for all losses caused by a disaster; it is intended to meet the survivor's basic needs and supplement disaster recovery efforts. Assistance may be provided for up to 18 months following the date of the disaster declaration, unless FEMA extends the period of assistance. FEMA delivers Direct Assistance at the request of the state.

These general conditions must be met for an applicant to be eligible to receive IHP Assistance:

- The applicant must be a U.S. citizen, non-citizen national, or qualified alien.
- FEMA must be able to verify the applicant's identity.
- The applicant's insurance, or other forms of disaster assistance received, cannot meet their disaster-caused needs.
- The applicant's necessary expenses and serious needs are a direct result of a declared disaster (FEMA, 2018).

FEMA determines the appropriate types of housing assistance for which an individual or household may be eligible based on disaster-caused loss, access to life-sustaining services, cost-effectiveness, and other factors. Individuals and households may receive more than one type of housing assistance, including a combination of financial assistance

and direct services for disaster damage to a disaster survivor's primary residence (FEMA, 2015).

U.S. Department of Agriculture (USDA) - Rural Development Disaster Assistance

The U.S. Department of Agriculture Rural Development Disaster Assistance delivers a number of programs to help improve the quality of life in rural communities throughout the nation. These programs may also help rural communities, businesses and individuals impacted by a disaster such as fire, drought or earthquakes (U.S. Department of Agriculture, 2018):

Home Repair Loan & Grant Program

- USDA provides loans and grants to help eligible homeowners make repairs to their homes.
- Grants are limited to individuals age 62 or older. Loans have no age restrictions, 1% interest with up to 20 years repayment.
- Applicants must be very low-income homeowners, and the homes must be located in eligible areas with a population of 35,000 or less (USDA, n.d.).

Rural Housing Direct Loan Program

USDA provides loans to eligible low-income individuals for the purchase of a home, or to make repairs to their homes, applicants must meet repayment requirements, applicants must be low-income homeowners and the homes must be located in eligible areas with a population of 35,000 or less (USDA, 2018).

USDA home loan borrowers who may have lost their job or had their hours reduced due to a disaster may receive assistance on their loan payment. Options

may include payment reduction, moratorium, or some other agreement. Through the Rural Housing Direct Loan Program, USDA can offer subsequent loans to current borrowers for essential repairs to their homes.

Multi-Family Housing

USDA finances affordable rental housing in rural areas for low-income families, farmworkers, the elderly and people with disabilities. The USDA also provides rental assistance to low-income tenants of USDA-financed properties to prevent rent payments from exceeding 30% of the tenant's income (USDA, 2012).

Long-term Recovery Resources for Residents

Based on the resources listed in the introduction (p. 14) we generated the following list of long-term resources that we believe are applicable to the recovery process for residents. The long-term recovery needs of residents are: long term housing, coordinated delivery of long-term social and health services, recovery of disaster related costs, and effective integration of mitigation strategies into recovery planning and operations.

Local (VOAD, City, County)

Assistance on the local level is one of the most important aspects in recovery when people are faced with a disaster. Individuals have the most access to and avenues of communication with local entities.

Coordinated Delivery of Long-term Social and Health Services

Salvation Army:

Depending on the magnitude of the disaster, the Salvation Army may continue providing immediate response services, such as food service, well into the recovery process. Additionally, the Salvation Army will often coordinate with local, state and federal entities to develop and execute long-term strategic disaster recovery plans. These activities include restoration and rebuilding initiatives, disaster social services to address essential living needs, medical expenses or funeral costs, and in-kind donation distribution to disaster victims (Salvation Army, 2019).

Emotional and Spiritual Care

Throughout the duration and aftermath of a major disaster, The Salvation Army provides spiritual comfort and emotional support upon request to victims and emergency workers coping with the stress of a catastrophe. Disaster relief and recovery services are provided to all in need without discrimination.

Long Term Housing

Humboldt County Housing Authority

The Housing Authority administers assistance through the Section 8, Housing Choice Voucher (HCV) program. The program allows income eligible individuals to receive vouchers for rental assistance payments for qualified housing throughout the County of Humboldt. The Housing Authority of the County of Humboldt is an independent Public Housing agency that operates under the authority of the U. S. Department of Housing and

Urban Development (HUD) and adheres to a myriad of local, state, federal laws. It posts plans and reports in compliance with its governing bodies (Humboldt County Housing Authority, n.d.).

Humboldt Habitat for Humanity

Habitat for Humanity affiliates, such as Humboldt Habitat for Humanity, “bring people together to build homes, communities, and hope” (Habitat For Humanity, 2019). Habitat California advocates for affordable housing with specific focus on homeownership opportunities for families with limited-incomes. Through Habitat’s Disaster Risk Reduction and Response program they are able to provide shelter assistance, education, training and partnerships to affected individuals. Habitat works to rebuild communities in these circumstances, moving them “from ruin to recovery.”

Within their Disaster Risk Reduction and Response program, Habitat for Humanity has instituted the Pathways to Permanence strategy. This program allows them to guide individuals and families through the necessary steps in taking back more control of their living situation following a tragedy, including erecting an emergency shelter, accessing or affirming land rights, improving a transitional shelter solution, defining next steps for a disaster damaged house or expanding a new housing solution (Habitat for Humanity, 2019).

Recovery of Disaster-Related Costs

Locally, there are no programs available to aid residents in recovery of disaster-recovery costs.

Integration of Mitigation Strategies Into Recovery Planning and Operations

Humboldt County Office of Emergency Services (OES)

The Humboldt County Office of Emergency Services is the primary local coordination agency for emergencies and disasters affecting residents, public infrastructure, and government operations in the County. (Humboldt County, 2018).

Emergency Operations Center

The Humboldt County OES manages emergency response from the Emergency Operations Center (EOC), using the Incident Command System (ICS). The state Standardized Emergency Management System (SEMS), and the federal National Incident Management System (NIMS) and National Response Framework (NRF) establish common operating procedures, best practices, and a “whole community” approach to disaster preparedness, response, recovery, and mitigation (Humboldt County, n.d.).

Local Multi-Hazard Mitigation Plans (LHMP)

Local Multi-Hazard Mitigation Plans are essential in identifying and developing strategies to mitigate risks and vulnerabilities associated with disasters. As of April, 2019, the City of Arcata is in the process of creating their Updated Local Multi-Hazard Mitigation Plan.

The following agencies provide long term mitigation strategies, aiding in Humboldt County's disaster preparedness:

Humboldt Community Emergency Response Team (CERT) Coalition

The Humboldt Community Emergency Response Team Coalition is an information center for regional disaster preparedness training, news, and workshops. They offer educators, individuals, neighborhood groups, and social groups a means of strengthening themselves and their communities to be more disaster-resilient. Humboldt County has 9 operating CERT teams, with several more being formed (Nellist, 2018).

(CERT) training is based on a foundation of modules that educate individuals about disaster preparedness for hazards that impact their area and trains them in basic disaster response skills such as fire safety, light search-and-rescue, team organization, and disaster medical operations. The intensive basic training course takes 23 hours and is typically held over a long weekend (Humboldt CERT Coalition, 2018).

Humboldt County Fire Safe Council

The Humboldt County Board of Supervisors (Board) endorsed the formation of the Humboldt County Fire Safe Council (HCFSC) in 2002, recognizing that community-based fire planning efforts assist residents in making their homes, neighborhoods, and communities fire safe (Humboldt County, 2019). The mission of the HCFSC is to:

Serve as a forum for the implementation of the measures outlined in the Community Wildfire Protection Plan, share fire-safety information, assess fire risk, promote community fire-safe planning and coordination, link fire-prevention programs and support the fire service and local FSCs (Humboldt County, 2019).

In addition to the broad range of fire protection and prevention entities represented by the HCFSC, the HCFSC creates a Humboldt County Community Wildfire Protection Plan (CWPP) every five years. A CWPP, as defined by the Healthy Forest Restoration Act (HFRA), is a plan for a community at risk that:

Is developed collaboratively identifies and prioritizes fuel reduction projects, and recommends measures to reduce the ignitability of structures (HFRA, 2019).

The CWPP update process includes extensive communication and coordination with local fire departments and fire safe councils, state and federal agencies, personnel from various county departments, and the general public. The latest Humboldt County CWPP update was drafted in 2018 and is expected to be ratified by the board of supervisors in 2019.

Since 2006, the CWPP has served as the guiding document for the work of the HCFSC and has been an excellent tool for planning and securing funding for numerous projects that have helped local residents and community groups prepare for the impacts of wildfire. Keeping this plan current and actionable is more important than ever as California faces unprecedented losses of life, property, and ecological values to wildfire. The CWPP has the following goals: Wildfire ignition prevention, wildfire preparedness, disaster preparedness, fire protection, restoration of beneficial fire and integrated planning (Humboldt County 2019).

Humboldt State University (HSU) Emergency Management:

Humboldt State University operates an Emergency Management Program which establishes policies and procedures and assigns responsibilities to ensure the effective management of campus operations during emergency situations. Additionally, the organization provides direction for disseminating emergency public information, establishing emergency communications, developing alerting and warning procedures, and assessing and reporting damage (Humboldt State University, 2018). 8,000 students attend HSU. Approximately 2,100 live on campus (Humboldt State University, n.d.), and a larger amount live off campus within Arcata. Student's are a uniquely vulnerable group due a lack of funds and access to documentation.

The Emergency Management Program maintains close ties with the City of Arcata through cross training response staff and agreements for use of facilities.

Emergency and Disaster Declarations

State-level emergency declarations include a governor's proclamation of a State of Emergency, governor's executive orders, and the Cal OES director's concurrence with an operational area emergency proclamation (Schwarzenegger, n.d.). The California Emergency Services Act (Brown, 2015) and the California Disaster Assistance Act (California Governor's Office of Emergency Services, 2019) direct emergency response and recovery policy and operations in California. State financial disaster assistance may be provided at the discretion of the governor.

Federal disaster declarations are requested by the governor, granted by the president, and reserved for catastrophic events. A presidential declaration of an Emergency or of a Major Disaster provides access to federal resources for individuals, businesses, and public agencies (Schwarzenegger, n.d.).

Emergency Operations Plan

The Humboldt County Emergency Operations Plan (EOP) provides a framework for the Humboldt Operational Area agencies to respond to any emergency requiring multi agency participation and/or activation of the County Emergency Operations Center (EOC). All hazard-specific and topic-specific contingency plans complement and build on the EOP (Humboldt County, 2015).

State

The state plays a key role in helping aid residents in recovery. The state can provide assistance that the local level may not be able to provide.

Long Term Housing

California Department of Housing and Community Development (HCD) :

The California Department of Housing and Community Development (HCD) provides a series of programs and grants to provide safe and affordable long term housing post disaster (California Department of Housing and community Development, 2018).

Some of the programs include:

Community Development Block Grant (CDBG):

The Community Development Block Grant Program partners with rural cities and counties to improve the lives of their low- and moderate-income residents through the creation and expansion of community and economic development opportunities in support of livable communities (California Department of Housing and Community Development, 2018). The primary federal objective of the CDBG program is the development of viable urban communities by providing decent housing and a suitable living environment and through expanding economic opportunities, principally, for persons of low- and moderate-income. “Persons of low and moderate income” are defined as families, households, and individuals whose incomes do not exceed 80 percent of the county median income, adjusted for family or household size (California Department of Housing and Community Development, 2019, p. 3).

Mobile Home Park Rehabilitation and Resident Ownership Program (MPROP):

This program provides short-term conversion loans to enable a resident organization, nonprofit sponsor or local public agency to purchase a mobile home park. With the acquisition of a park, funds are also available to help low-income residents finance the purchase of shares or spaces in a park or to help pay for the cost to repair/replace low-income residents' mobile homes (California Department of Housing and Community Development, 2018).

CalHome:

CalHome makes grants to local public agencies or nonprofits for first-time homebuyer down payment assistance, home rehabilitation, acquisition and rehabilitation, homebuyer counseling, self-help mortgage assistance programs or technical assistance for self-help homeownership. Assistance to individuals would be in the form of deferred payment loans, payable on sale or transfer of the home, or when they cease to be owner occupied or at maturity (California Department of Housing and Community Development, 2018).

Recovery of Disaster-Related Costs

Insurance is one of the first resources available in the recovery process. Insurance is an extremely important resource for recovering costs incurred in the event of a wildfire. State insurance is available from the following agencies:

[California Department of Insurance - Insurance Recovery Assistance:](#)

Survivors must contact their insurance agent or company representative to report losses, review coverage, and answer any questions. Additionally, the State of California provides

disaster assistance in the form of reimbursement for disaster-related costs through the following program:

California Disaster Assistance Act Program:

The California Disaster Assistance Act (CDAA) Program is the State disaster program for local government and special district agencies (California Governor's Office of Emergency Services, 2019). Their website notes that, although CDAA is comparable to FEMA's Public Assistance grant program, state agencies and private nonprofits are not eligible. The CDAA program may be implemented as a "stand alone" funding source following State OES Director's concurrence with a local emergency or Governor's state of emergency proclamation when there is no federal declaration. The CDAA program may provide reimbursement for disaster-related costs including emergency response, emergency protective measures, and restoration of public infrastructure. (California Governor's Office of Emergency Services, 2019).

Integration of Mitigation Strategies Into Recovery Planning and Operations

State of California 2018 Hazard Mitigation Plan:

Mitigation Plans form the foundation for a state or community's long-term strategy to reduce disaster losses and break the cycle of damage, reconstruction, and repetitive damage. The State of California's Enhanced Multi-Hazard Mitigation Plan (SHMP) is a collaborative effort to identify, reduce, or eliminate the long-term risk to human life and property from natural, technological/accidental, adversarial, or human-caused hazards in California (California Governor's Office of Emergency Services, 2018). The SHMP guides the state as a whole in developing the capabilities necessary to reduce losses by

lessening the impact of disasters and enhancing state and community disaster resilience. As the state's primary hazard mitigation guidance document, it provides an updated and comprehensive description of California's historical and current hazard analysis, mitigation strategies, goals, and objectives, as well as assessment of climate projections, impacts, and risk-reduction efforts. California is required to review and revise the SHMP and resubmit it for FEMA approval every five years to ensure continued eligibility of Stafford Act funding. This includes eligibility for FEMA's Hazard Mitigation Assistance (HMA) Programs including: Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), Fire Management Assistance Grant Program (FMAG), and Public Assistance (PA) grants. In addition, the state remains eligible for the reduced-cost share for grants awarded under the FMA grant programs, and California's "Enhanced Plan" designation also enables the state to receive increased HMGP funds from 7.5 percent to 20 percent after a federally declared event, providing a greater allotment to implement the State's mitigation program (State of California, 2018).

California Department of Forestry and Fire Protection (CAL FIRE):

CAL FIRE's 2018 Strategic Fire Plan provides a vision for a natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships (CAL FIRE, 2018). Goals that are critical to achieving the 2018 Strategic Fire Plan's (CAL FIRE, 2018) vision revolve around fire prevention, natural resource management, and fire suppression

efforts, as broadly construed. Major components are: Improving the availability and use of consistent, shared information on hazard and risk assessment; 2) Promoting the role of local planning processes, including general plans, new development, and existing developments, and recognizing individual landowner/homeowner responsibilities; 3) Fostering a shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans (CWPP).

Federal

When a disaster overwhelms, state and local governments may not be able to provide sufficient resources to aid residents in the recovery process. In these cases, the federal government provides many assistance programs for long term housing, recovery of disaster related costs, and effective integration of mitigation strategies into recovery planning and operations.

Long Term Housing

U.S. Department of Housing and Urban Development (HUD):

The U.S. Department of Housing and Urban Development (HUD) provides a variety of disaster resources. They also partner with Federal and state agencies to help implement disaster recovery assistance (U.S. Department of Housing and Urban Development, 2019). For long term housing assistance, HUD provides:

Federal Housing Administration (FHA) Mortgage Assistance:

For a Presidentially declared disaster, FHA activates a mortgagee letter making a variety of insured loan programs available for disaster victims and putting into

play use of special loan servicing and underwriting requirements (U.S. Department of Housing and Urban Development, 2019).

Office of Housing Counseling (OHC) Disaster Recovery and Emergency Preparedness Toolkit:

The Office of Housing Counseling (OHC) provides a Disaster Recovery and Emergency Preparedness Toolkit (U.S. Department of Housing and Urban Development, 2019) which includes:

- An Emergency Preparedness Guide for Housing Counseling Agencies to assist housing counseling agencies in developing an Emergency Preparedness Plan.
- Emergency Preparedness and Recovery Resources for Housing Counseling Agencies such as a list of websites to help community preparedness for a disaster.
- A Housing Counseling Disaster Program Guide which provides a model to help counseling agencies expand and support long-term disaster recovery services.

Recovery of Disaster-Related Costs

Federal Emergency Management Agency (FEMA):

Disaster Cost Recovery Management Team:

The Disaster Cost Recovery Management Team assists on disaster assessment and expense reimbursement pertaining to damage, emergency protective measures, and debris management for disaster recovery funding streams, such as insurance,

Federal Emergency Management Agency (FEMA) Public Assistance, Federal Transit Administration Emergency Relief Program, Federal Highway Administration Emergency Relief Program, Community Development Block Grants – Disaster Recovery (CDBG-DR), and other Federal, state, tribal, territorial, and local programs. This team coordinates with and continues the National Incident Management System (NIMS) 508-10: Rapid Needs Assessment (RNA) Team’s initial operations (FEMA, 2016).

Integration of Mitigation Strategies Into Recovery Planning and Operations

Federal Emergency Management Agency (FEMA):

Hazard Mitigation Grant Program (HMGP)

The purpose of FEMA’s Hazard Mitigation Grant Program is to help communities implement hazard mitigation measures following a Presidential Major Disaster Declaration in the areas requested by the Governor. The key purpose of this grant program is to enact mitigation measures that reduce the risk of loss of life and property from future disasters. HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (FEMA, 2018).

Benefits of HMGP:

Supports risk reduction activities, improves resiliency, eliminates the impact of future events, provides a long-term solution to a problem, offers a cost-effective solution, and helps avoid repetitive damage from disasters.

Eligible Applicants:

Individuals may not apply directly to the state for assistance, local governments may sponsor an application on their behalf.

Resources Available to Businesses in Arcata

Short-term Recovery Resources for Businesses

Based on the resources listed in the introduction (p. 14) we have adapted the following list of short-term resources that we believe are applicable to the recovery process for businesses. The short-term recovery needs of businesses are: utility restoration, reestablishment of business operations, debris removal, building safety inspections, abatement and demolition of hazardous structures, and temporary business space.

Local (VOAD, City, County)

Utility Restoration:

Utility restoration for businesses at the local level would be provided by the same entities listed under utility restoration for residents (p. 20)

Reestablishment of Business Operations:

Following a disaster, the immediate goal of many business owners is to reopen their businesses as soon as possible. However, a post-disaster environment is anything but "business as usual" for businesses, their employees, key suppliers, and customers. It may therefore be prudent for business owners to reflect on their options before considering reopening. To know what options are available to businesses, they should determine the financial health of their business. This information will help them to determine whether: 1) They can afford to reopen the business the

way it was before the disaster and how quickly they can reopen the business and 2) They can or should expand, shrink or even close their business (ASBTDC, n.d.).

Humboldt County Emergency Operations Plan (EOP):

According to the Humboldt County EOP, redevelopment agencies in the County play a vital role in rebuilding the commercial capacity of the Humboldt Operating Area (OA). Therefore, recovery programs will also be sought for individual citizens and private businesses (Humboldt County, 2015).

Additionally, for federally declared disasters, registration centers may be established by the Federal Emergency Management Agency (FEMA) to assist disaster victims and businesses in applying for grants, loans, and other benefits, by phone, online, and/or in person in Local Assistance Centers (LAC) (Humboldt County, 2015).

Arcata Chamber of Commerce

The local Chamber of Commerce is a great resource and conduit during a recovery process. Because chambers speak for businesses, they can advocate for additional outside resources that the community might need. Chambers channel resources and funds that can be of great assistance to impacted businesses. They need to hear about business's needs.

Additionally, many chambers have relationships or share space with Small Business Development Centers (SBDC). SBDCs offer free business counseling including guidance after disasters (U.S. Chamber of Commerce Foundation, n.d.).

Debris Removal

Local debris removal resources would be provided by the same entities listed for residents (p. 26).

Building Safety Inspections

Local resources for building safety inspections would be provided by the same entities as for residents (p. 26).

Demolition of Hazardous Structures

Local resources for abatement and demolition of hazardous structures would be provided by the entities listed under residents (p. 27).

Temporary Business Space

We were not able to identify formal resources that provide temporary business space during a recovery process. Potential options include private entities that may expand to fill a need in Arcata should the need arise.

State

Utility Restoration:

State utility restoration services would be provided to businesses by the same entities that provide these services to residents (p. 29).

Reestablishment of Business Operations:

California Small Business Development Center:

The California Small Business Development Center (SBDC) Program is the leader in providing small business owners and entrepreneurs with the tools and guidance needed to become

successful in today's challenging economic climate and in the face of disasters (California Small Business Development Center, n.d.). The California Small Business Development Centers Disaster Resource Guide provides tips and information such as:

Business Insurance Types of Claims

Business insurance claims can be filed for direct property damage, including collateral damage, and for indirect property damage, including business income losses; extra expenses and computer, valuable records and data processing losses.

Agricultural Businesses Disaster Assistance:

- **Emergency farm loans:** Producers can borrow up to 100 percent of actual production or physical losses, to a maximum amount of \$500,000 (United States Department of Agriculture, 2012).
- **Emergency Conservation Program (ECP):** The ECP provides emergency funding and technical assistance for farmers and ranchers to rehabilitate farmland damaged by natural disasters and for carrying out emergency water conservation measures in periods of severe drought. (United States Department of Agriculture, 2012)
- **Supplemental Revenue Assistance Payments (SURE) Program:** SURE provides financial assistance for crop production and/or quality losses due to a natural disaster (United States Department of Agriculture, 2008).
- **Tree Assistance Program (TAP):** TAP provides financial assistance to qualifying orchardists to replace eligible trees, bushes and vines damaged by natural disasters (United States Department of Agriculture, 2014).

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- **Emergency Forest Restoration Program (EFRP):** EFRP provides payments to eligible owners of non-industrial private forest (NIPF) land in order to carry out emergency measures to restore land damaged by a natural disaster (United States Department of Agriculture, 2012).
 - **Emergency Assistance for Livestock, Honey Bees and Farm-Raised Fish (ELAP):** ELAP provides emergency relief to producers of livestock, honey bees and farm-raised fish. Covers losses from disaster such as adverse weather and wildfires not covered by any other disaster program (United States Department of Agriculture, 2012).
 - **Livestock Indemnity Program (LIP):** LIP provides assistance to producers for livestock deaths that result from disaster (United States Department of Agriculture, 2014).

Debris Removal:

State debris removal resources for businesses would be provided by the same entities that provide these resources for residents (refer to State Debris Removal Resources p. 33).

Building Safety Inspections

State resources for building safety inspections for businesses will be the same as were listed for residents (p. 34).

Demolition of Hazardous Structures

There are no formal state entities that provide resources for demolition of hazardous structures.

Temporary Business Space

California State does not provide temporary business space resources.

Federal

Utility Restoration:

Based on our research, we concluded that utility restoration was provided at the local and state level. No current federal avenues for utility restoration are in place.

Reestablishment of business operation:



Figure 2: Four step business continuity plan created by the Department of Homeland Security (Department of Homeland Security, n.d.)

When business is disrupted, it can cost money. Lost revenue plus extra expenses means reduced profits. Insurance does not cover all costs and cannot replace customers that defect to the competition. A business continuity plan to continue business is essential. The Ready Campaign prepared a format for the development of a business continuity plan that includes four steps shown in figure 2 (Department of Homeland Security, n.d.).

Debris Removal:

Federal resources for debris removal would be provided by the same entities that provide these resources to residents (p. 41).

Building Safety Inspections:

Individuals would need to fund private safety inspections. FEMA will not inspect private businesses.

Demolition of Hazardous Structures:

Robert T. Stafford Disaster Relief and Emergency Assistance Act

Direct Federal Assistance:

According to FEMA, when the State and local government lack the capability to perform or contract for eligible emergency work and/or debris removal under sections, Direct Federal Assistance (DFA) may be available for curbside debris removal, demolition, or vessel salvage operations. FEMA will provide DFA through a mission assignment to another Federal agency - upon request of the State - when the State and local government certify they lack the capability to perform or contract for the requested work. The duration of mission assignments for debris removal is limited to 60 days from the disaster declaration date. The Federal Coordinating Officer (FCO) may approve extensions for up to an additional 60 days, if a State or local government demonstrates a continued lack of capability to assume oversight of any debris removal mission (FEMA, 2019).

Temporary Business Space

The Federal Government does not provide temporary business space resources.

Long-term Recovery Resources for Businesses

Based on the resources listed in the introduction (p.14) we have adapted the following list of long-term resources that we believe can be enlisted to aid the recovery process for businesses.

The long-term recovery needs of businesses are: reconstructed facilities, reestablishment of the local economy to pre-disaster levels, recovery of disaster related costs, and effective integration of mitigation strategies into recovery planning and operations.

Local (VOAD, City, County)

Reconstructed Facilities

Businesses require a speedy restoration to minimize losses. Not only are businesses affected financially, but the lives of employees and clients are disrupted. Disaster reconstruction companies are aware of the importance of swiftly addressing the ruin that impacts business operations. Most experienced disaster reconstruction services work with homeowners and businesses to file claims with their respective insurance companies. Property owners are encouraged to document the disaster. Most disaster reconstruction services will also provide assistance with documenting the damage (Armstrong, 2018).

Reestablishment of the Local Economy to Pre-disaster Levels

The local economy will need to be functional as quickly as possible. This includes recovering disaster related costs, building inspections, and other related issues referenced in the recommendations section.

Recovery of Disaster Related Costs

Federal and state funding will be the largest income source for disaster related funds. Returning the tax base to normal function is also a necessity for recovering disaster related costs.

Integration of Mitigation Strategies into Recovery Planning and Operations

The North Coast Small Business Development Center (SBDC):

The North Coast Small Business Development Center (SBDC) is a nonprofit organization that provides no-cost advising, low cost workshops, and small business trainings to guide small businesses. The North Coast SBDC is able to help business on the local level in the long term recovery phase. The North Coast SBDC serves all of Humboldt and Del Norte Counties, is currently hosted by Humboldt State University Sponsored Programs Foundation, and is part of the Northern California SBDC network (North Coast Small Business Development Center, 2019).

State

Reconstructed Facilities

California Building Officials (CALBO) :

California Building Officials is a non-profit corporation dedicated to promoting public health and safety in building construction through the promotion of responsible legislation, education, and building code development. CALBO's has their website available with information that has resources for emergency preparedness, disaster response, post disaster recovery, and permitting. (California Building Officials, 2019)

Reestablishment of the Local Economy to Pre-disaster Levels

California Department of Tax and Fee Administration (CDTFA)

The CDTFA has specific information related to emergency tax or fee relief, extensions, penalty and interest relief and replacement of tax records for business owners and fee

payers that are victims of disasters declared as state of emergencies. (California Department of Tax and Fee Administration, 2019)

California Employment Development Department (EDD)

Workers, business owners and self-employed individuals who lost their jobs or had their work hours substantially reduced due to fires may be eligible for Disaster Unemployment Assistance benefits through claims submitted to EDD (California Employment Development Department, 2019).

Recovery of Disaster Related Costs

California Board of Equalization

CBE provides tax relief to business that have been victim to wildfire (California Board of Equalization, 2019).

California Department of Insurance:

The California Department of Insurance is charged with overseeing insurance regulations, enforcing statutes mandating consumer protections, educating consumers, and fostering the stability of insurance markets in California (California Department of Insurance, 2019).

Integration of Mitigation Strategies into Recovery Planning and Operations

California Office of Emergency Services

Businesses can do much to prepare for the impact of the many hazards they face today, including natural hazards like floods, hurricanes, tornadoes, earthquakes, and wildfire. CalOES has a designated Recovery Section which provides assistance to businesses by acting as the grantee for federal recovery funding programs and coordinating recovery

resources. CalOES also acts as a liaison for a coordinated recovery process (CalOES, n.d.).

2018 California State Hazard Mitigation Plan (SHMP)

Realizing the need for stronger public-private collaboration, Executive Order S-04-06 gave Cal OES greater authority to partner with private industry. This led to Cal OES signing MOUs with private sector and non-profit organizations creating the Business and Utility Operations Center (BUOC) comprised of the Utility Operations Center (UOC) and Business Operations Center (BOC). The BOC is composed of 15 of California's largest businesses in the finance, home retail goods, and agricultural sectors. The UOC consists of a single member: the California Utilities Emergency Association. During emergencies, the BUOC is activated to enhance members' capabilities to respond to and recover from emergencies. Beyond involvement in emergency management, utilities are involved in ongoing investments replacing obsolete equipment and facilities. Many of these investments represent improvements in the resilience to natural and human-caused hazards within the utilities' plants and facilities (California Governor's Office of Emergency Services, 2018).

Federal

Reconstructed Facilities

Disaster Response Registry

The Disaster Response Registry is used by FEMA and the U.S. Army Corp of Engineers to establish their list of contractors that want to provide disaster-response assistance through Federal Government procurement opportunities (U. S. General Services Administration, 2019).

Reestablishment of the Local Economy to Pre-disaster Levels

U.S. Economic Development Administration

EDA has a long history of successfully supporting disaster recovery and resiliency efforts. EDA's role in disaster recovery is to facilitate the timely and effective delivery of Federal economic development assistance to support long-term community economic recovery planning and project implementation, redevelopment and resiliency. EDA is uniquely positioned to coordinate regional disaster recovery efforts in partnership with its extensive network of Economic Development Districts (EDDs), University Centers, institutions of higher education and other partners in designated impact areas (U.S. Economic Development Administration, 2017).

International Economic Development Council

With funding from the U.S. Economic Development Administration, the International Economic Development Council (IEDC) has developed a website,

www.restoreyoureconomy.org, devoted to disaster preparedness and post-disaster economic recovery. Disaster victims whose property is damaged or destroyed by a disaster may be able to receive a loan from the Federal government to help with repairs. Even without a Presidential declaration of disaster, the Small Business Administration (SBA) may provide disaster assistance in the form of low interest loans to qualified individuals and businesses. To receive an SBA loan, applicants must demonstrate their ability to repay the loan. Disaster loans may be made available to homeowners to repair or replace homes or personal property. Renters also may be eligible for loans to repair or replace personal property damaged by the disaster. Businesses may receive SBA physical loss disaster loans intended to repair disaster-related damage to property owned by the businesses, including inventory and supplies. Economic injury disaster loans provide working capital to small businesses and to small agriculture cooperatives to assist them through the disaster recovery period. These are available only if the business or its owners cannot obtain this type of assistance from non-government sources.

Small Business Administration (SBA) Physical Disaster Loan

The SBA Business Physical Disaster Loan covers disaster losses not fully covered by insurance. SBA makes physical disaster loans of up to \$2 million to qualified businesses or most private nonprofit organizations. These loan proceeds may be used for the repair or replacement of the following: real property, machinery, equipment (U.S. Small Business Administration, 2019).

Economic Injury Disaster Loans

Businesses may be eligible for an SBA Economic Injury Disaster Loan (EIDL) if you have suffered substantial economic injury and are one of the following types of businesses: small business, small agricultural cooperative, most private nonprofit organizations. Substantial economic injury means the business is unable to meet its obligations and to pay its ordinary and necessary operating expenses. EIDLs provide the necessary working capital to help small businesses survive until normal operations resume after a disaster. The SBA can provide up to \$2 million to help meet financial obligations and operating expenses that could have been met had the disaster not occurred. (U.S. Small Business Administration, 2019).

Recovery of Disaster Related Costs

Federal Resources for Disaster Related Costs can be provided by the same entities that provide resources for the Reestablishment of Local Economy to Pre-Disaster Levels (pp.71).

Integration of Mitigation Strategies into Recovery Planning and Operations

Department of Homeland Security

Ready Campaign

The Ready Campaign provides a host of resources for business to optimize their resilience and recovery in the wake of disaster (Department of Homeland Security, n.d.) including implementation tips for a preparedness program:

- **Resource Management:** Identify and assess resources needed for responding to emergencies, continuing business operations and communicating during and after an incident.

-
- Emergency Response Plan: Develop plans to protect people, property and the environment such as evacuation and shelters.
 - Business Continuity Plan: Develop a business continuity plan that includes recovery strategies to overcome the disruption of business
 - Employee Assistance & Support: Plans should also be developed to support the needs of employees following an incident such as a family preparedness plan.
 - Training: All employees should be trained with a defined role so they can take appropriate protective actions during an emergency.

Resources Available to Schools in Arcata

Schools are an integral component of communities. Wildfires can disrupt school districts in multiple ways. A mass exodus of the student body, staff, and faculty can occur from evacuations; likewise, an influx of students from a neighboring district can occur the same way. Direct damage to facilities forces schools to relocate to continue operations. For example, the Camp Fire caused the school district of Paradise to relocate to Chico in temporary facilities (Washburn and Lambert, 2018). In our research, we found that resources for schools are more reactive and informal than proactive and pre-established.

Short-term Recovery Resources for Schools

Short-term recovery operations are necessary for restoring schools to full functionality. We have adapted the list of short-term recovery resources (p. 14) to be applicable to schools. The

short-term recovery resources we have identified as being relevant to schools' recovery process are: utility restoration, expanded social, medical and mental health services, re-establishment of school operations, building safety inspections, abatement and demolition of hazardous structures, finances, and need for temporary school facility space.

Local (VOAD, City, County)

Utility Restoration

Utility restoration is provided to residents, businesses, and schools within the City of Arcata by the same entities. Restoration of utilities will be conducted for the community as a whole.

Expanded Social, Medical and Mental Health Services

Health services within schools such as clinics and counseling services would likely be implemented when possible during the recovery process. In the event of mass destruction of school facilities, or of a large influx of students from destruction of a nearby school, these services would have difficulty keeping up with demand. Expansion of social, medical, and health services within the school system will therefore be necessary. In lieu of formal school health services, students and faculty would likely rely on the same services available to residents (p. 21).

Re-establishment of School Operations

Re-establishing normal operations of a school is necessary for a school to recover and return to pre-fire conditions. This process is contingent on residents' recovery, as community members may find it difficult to return to school if they are not back in their homes. Funding resources are available to help schools return to pre-fire conditions.

Building Safety inspections

Safety inspections of school buildings would be conducted by the City of Arcata or private contractors as listed in the residents' section. (p. 26)

Demolition of Hazardous Structures

Demolition of hazardous structures would be conducted by the same contractors as listed in the residents' section. (p. 27)

Finances

DonorsChoose

This organization works specifically to help students, teachers and schools in need and sends donations to their school districts (DonorsChoose, n.d.).

Temporary School Facility Space

There are two important scenarios that would necessitate temporary school facility space. If school facilities are damaged or destroyed during a fire, school operations would need to take place in another location. Also if there is a large influx of students into Arcata following a fire in a nearby location, temporary school facility space will need to be provided, or students will need to temporarily shift to another school as was the case for Redding, California in 2018 (Shasta County Office of Education, 2018).

Butte County Schools Long-Term Recovery Fund

When a disaster strikes, new funds to address challenges such as school recovery may emerge (North Valley Community Foundation, 2019).

Arcata School District Disaster Plan

This plan draws on the resources of the entire district to react to a disaster in a manner appropriate to the circumstances (Arcata School District, 2019).

State

State level response for schools is requested to support local recovery efforts.

Utility Restoration

Refer to Residents section (p. 29)

Expanded Social, Medical and Mental Health Services

Refer to Residents section (p. 30)

Re-establishment of School Operations

The California Department of Education

Committed to working with school districts and schools in order to recover and get students, teachers, and faculty back to pre-fire working conditions (California Department of Education, 2019).

Building Safety Inspections

Refer to Residents section (p. 34)

Abatement and Demolition of Hazardous Structures

There are not State entities that provide this resource.

Finances

The California Teachers Association (CTA)

Provides assistance to members through voluntary donations from other members and fundraising drives. Assistance is provided through the CTA Disaster Relief Fund (California Teachers Association, 2019) Grants are also provided by the association for economic hardship, catastrophic damages, temporary displacement and classroom damages. The grant amounts vary from \$500 to \$50,000.

Temporary School Facility Space

Determination for temporary school facilities is dependant on the School Safety Plan that the school will implement in the event of a wildfire.

Federal

Expanded Social, Medical and Mental Health Services:

The School Emergency Response Program

Funds available for schools to use to help people manage the problems and/or traumatic events they went through. This allows the Local Education Agency (LEA) and schools to provide a sense of safety and security (U.S. Department of Education, 2018).

Re-establishment of School Operations:

The Bipartisan Budget Act of 2018

This law provided \$2.7 billion in assistance to schools affected by hurricanes Harvey, Irma and Maria as well as California wildfires. It sought to help schools, school districts, colleges, universities, and other institutions return to their full capabilities (U.S. Department of Education, 2019).

Long-term Recovery Resources for Schools

We have adapted the list of long-term recovery resources (p.14) to be applicable to schools' recovery process including : reconstructed school facilities, recovery of disaster-related costs, and effective integration of mitigation strategies into recovery planning and operations.

State

Recovery of Disaster-Related Costs

[California Department of Education \(CDE\)](#)

Schools have the option to fill out form J-13A waiver request to maintain Local Control Funding Formula (LCFF) levels if they were unable to provide the required amount of instructional days set forth by the state due to wildfires (CDE FAQ sheet, 2018). LCFF funding provides the base funds for school operations within the state.

Federal

Recovery of Disaster-Related Costs

[California department of Education \(CDE\)](#)

CDE can receive federal emergency grants in order to help schools that were impacted by wildfires. State Superintendent of Public Instruction Tom Torlakson announced that CDE would receive a \$14.4 million in federal emergency grants for schools impacted by wildfires in 2017 (California Department of Education, 2018).

Integration of Mitigation Strategies Into Recovery Planning and Operations

U.S Department of Education - Readiness and Emergency Management for Schools

This grant program supports efforts by LEAs to create, strengthen, and improve emergency management plans at the district and school-building levels, including training school personnel on emergency management procedures; communicating with parents about emergency plans and procedures; and coordinating with local law enforcement, public safety or emergency management, public health, and mental health agencies and local government (U.S. Department of Education, 2019).

Recovery Resources Needed in the Event of a Wildfire

Based on our assessment of the currently available resources for wildfire recovery, we have identified the following gaps in the wildfire recovery process:

Residents:

After a disaster, community residents typically lack the following wildfire recovery resources:

- There is no Debris Removal Plan. A comprehensive plan for debris removal would expedite the process of clearing hazardous waste and allowing the community to rebuild and/or return to the area.
- There is a lack of emergency temporary housing in the event of a wildfire. There are certain areas within the city that may be suitable for temporary housing that have not been specifically identified. Humboldt State University may also be able to help with temporary housing in the event a wildfire disaster occurs when school is not in session.
- Lack of building safety inspection and building demolition resources. The City of Arcata only has one building inspector, and there are limited state and federal funds to help with

the contracting needs for this service. In the event of a large, destructive wildfire, there would be an increased need for hiring private contractors to carry out inspections and, if necessary, demolition of buildings that pose a risk to public health. There is currently a lack of resources available for that service.

- Lack of information that the city can provide to the residents that are affected by wildfires. A Redding, CA resident who was affected in the Carr Fire told us that there was a lot of conflicting information that the news, state agencies, and personal contractors communicate to those affected. This information is valuable to the residents, however, it is even more valuable for residents to be able to obtain reliable information directly from the city.

Businesses:

Businesses are lacking the following wildfire recovery resources:

- There is a lack of federal funding for economic and business recovery. (Navigating the Federal System Post-Disaster, 2018).
- There are limited resources available for local business continuity post disaster; Businesses should be encouraged to have a business continuity plan in place. The business community should be prompted to have such plans in place by the city. Other than federal and state disaster loan programs there is no aid for business infrastructure post disaster currently in place.
- In summary, businesses appear to generally be left to fend for themselves when compared to residents. Outside of insurance, not much exists.

Schools:

Schools are lacking the following wildfire recovery resources:

- There is a lack of long-term recovery resources in place; there are no mechanisms available to reconstruct school facilities. Due to reliance on district for tax base, if the district is heavily damaged and residents move, the tax base to reconstruct the school won't be available. In the event that a school burns all the way or partially, it would be very important to expedite building needs in order to keep people within a school district.
- There are limited resources available for recovery of disaster-related costs, and for effective integration of mitigation strategies into recovery planning and operations.
- There is a lack of regular communication in the relationship between the city and its schools. Schools can be used for evacuation shelters where the City can safely direct their residents.
- There is a lack of plans set in place to protect students and staff from smoke inhalation.

Recommendations to the City of Arcata

As previously stated, part of our goal in creating this report is to inform the City of Arcata's Hazard Mitigation planning effort by highlighting the need for comprehensive wildfire recovery planning. Just as emergency response operations are best managed through coordination from a single location like an Emergency Operations Center (EOC), recovery operations will need the same level of coordination but potentially with new players and new issues (City of Shoreline, 2010). We have the following recovery planning recommendations.

Debris Removal Plan:

Create an effective debris removal plan in order to; facilitate response and recovery activities, facilitate the quick return of the community to normalcy, reduce impacts to humans and the environment, ensure effective use of resources, help to control and minimize costs, and aid in complying with applicable local, state/tribal/territorial, and Federal regulations.

According to San Diego County's 2007 Plan, demolition of disaster-damaged structures may be eligible for emergency work assistance if the work is necessary to:

- Eliminate an immediate threat to public safety, and public health.
- Eliminate immediate threats of significant damage to improved public or private property.
- Ensure the economic recovery of the affected community to the benefit of the community-at-large.
- Mitigate the risk to life and property by removing substantially damaged and associated appurtenances as needed to convert property acquired through a FEMA hazard mitigation program to uses compatible with open space, recreation, or wetlands management

practices. Removal of slabs or foundations and covering of pads and driveways that do not present a health or safety hazard (except for structures in a FEMA funded buyout program) is not eligible for reimbursement. As with PPDR, demolition of private structures requires approval by FEMA prior to start of work and appropriate agreements with local governments to hold the Federal government free from damages due to performance of the work must be in place. Demolition also requires condemnation by an authorized local official in accordance with State and local law (County of San Diego, 2007, p. 5-13,14).

Building Safety Inspection:

Buildings must be inspected to determine if they are safe to reenter after fire damage occurs. Buildings left standing must be approved by an inspector prior to any actions taken to re enter or repair the structure. The City of Arcata may contract out such services to private or state agencies. The City of Arcata only has one building inspector, and there are limited state and federal funds to help with the contracting needs for this service. In the event of a large, destructive wildfire, there would be an increased need for hiring private contractors to carry out inspections and, if necessary, demolition of buildings that pose a risk to public health.

Emergency Temporary Housing:

It would be valuable to identify more places to temporarily house residents. Arcata has several homeless shelters that are in high demand. Facilities with gymnasiums like Arcata High, Healthsport, and Humboldt State can offer shelter for temporarily displaced residents. For more

long term temporary housing the City may choose to identify flat parcels with access to utilities that trailers could be installed on.

Agreements With Appropriate Public and Private

Organizations:

The City should work to improve cooperation among agencies and to ensure familiarity with the emergency response and recovery plans of various agencies; and develop, implement and maintain mutual aid agreements for disaster services (City of Shoreline, 2010). The pre-disaster recovery planning effort will provide a much deeper organizational understanding of the personnel and other resources that may be required to effectively manage critical recovery services. The California Building Inspectors Mutual Aid Guide expands on how this can be done through the state's Emergency Managers Mutual Aid (EMMA) system and can be found under the Appendix C 'City Emergency Preparedness' (CALBO, 2018).

Agreements with Schools:

It would be valuable for the schools in the Arcata area to communicate about emergency management and recovery in case the need to use their facilities for emergency evacuation shelters arises. The high schools may have some accommodations necessary to host evacuees such as showers, kitchen, and large space to sleep people. These connections are beneficial for both the City and the schools to have an action plan in place in the case of an evacuation.

Agreements With Private Entities:

The city should coordinate with the private sector to facilitate the recovery process.

Establishing agreements with private entities would help to expedite the restoration of public infrastructure residence, business, and industry in the post-disaster environment.

Part of these agreements could involve encouraging all business owners and other private entities to create response and recovery plans and programs (City of Shoreline, 2010).

Potential plan criteria are referenced in the Appendix C under ‘Business Planning For Emergencies’.

Agreements With Transit Providers:

An emergency transportation network may need to be implemented to maintain public health and safety and aid in the economic recovery of the City. It is important for the City to identify the most efficient and effective method of operating the transportation system within the city in the event of a disaster (City of Shoreline, 2010). Pre-disaster planning efforts can identify some options for an emergency transit network, but implementation will need to adapt to the conditions of the particular event. Pre-disaster contact and establishment of agreements with transit providers, such as the Humboldt Transit Authority, can help to expedite the configuration and implementation of an emergency transportation network. One way to facilitate the transportation recovery process would be for the City to appoint a transit coordinator, or an equivalent role, to a Recovery Task Force. That individual could be a representative from the Humboldt Transit Authority.

Assigning Roles and Responsibilities For Specific Recovery

Activities:

The City of Arcata can facilitate a coordinated recovery process by defining recovery roles and responsibilities before an event occurs. An example is:

- A Recovery Task Force: The City can work with the community to create a task force composed of representatives of government, business, nonprofit organizations, and others. A Recovery Task Force helps to ensure a whole-community approach to problem solving pre- and post- event. Pre-disaster, the Task Force will meet on an ongoing basis to maintain a current view of recovery priorities and to ensure the group is ready to provide expert advice in a coordinated fashion when a disaster strikes. The Task Force brings together all recovery related efforts to maximize coordination and service delivery.

The Task Force would be in charge of the following activities:

- Overseeing the recovery and reconstruction process
- Assisting in the preparation of a post-disaster redevelopment plans
- Recommending ordinances and policies necessary to efficiently manage the recovery process
- Developing policies that promote mitigation from future damage
- Recommending economic recovery initiatives
- Developing policies for redevelopment
- Developing procedures to implement reconstruction policies

A Disaster Recovery Coordinator should be appointed to act as chairperson of the Recovery Task Force and carry out the following activities in a disaster event:

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- Managing disaster recovery programs
 - Making recommendations to the City Manager and elected officials on recovery matters reviewed by the Recovery Task force
 - Coordinating with appropriate entities in situations where recovery issues involve other jurisdictions and agencies.

Vital Records Protection and Retention Plan:

The City should plan to provide protection of City documents and information required to continue essential operations in the event of a disaster and to resume normal operations after a disaster (City of Shoreline, 2010). Potential strategies to protect vital records include:

- Off-site storage and back-up: Keeping copies of vital records in a location outside of Arcata, such as a California State Archive.
- Digital storage and backup: The city can begin a process of digitally uploading and storing vital documents, so they can be accessed electronically should hard copies be damaged or destroyed. Cloud computing is a useful tool for this because files stored in a “cloud” can be accessed from any computer when connected to the web.

Liaison and Contact With the Community:

A complaint from a Redding, CA resident who was affected by the Carr Fire (p. 81) was that information during the recovery process was difficult to obtain and was often conflicting. Arcata should prioritize developing methods of ensuring dissemination of clear and factual information during the recovery process to mitigate disruption to the community and protect the credibility of

the city and recovery resource providers (Shoreline, 2010). Potential methods for information dissemination following a wildfire include:

- Establishment of a hotline or helpline that is staffed around the clock. Having dedicated phone lines where individuals can speak directly to informed city representatives can help to provide factual, current information.
- Condensing and disseminating recovery information using multimedia communication. Condensing this report and creating various forms of media publications would be a useful way to inform the community of available resources. Distribution could include flyers, print media, billboards, web, TV, radio, ham-radio, and social media. Distribution must ensure that people with disabilities must have comparable access to information. Additionally, the information needs to be in plain language and translated into the most common languages of affected populations (City of Seattle, 2015). Redundancy and accessibility of information helps to ensure wide distribution and usefulness.
- Appointment of an individual to a Recovery Task Force that is directly responsible for ensuring dissemination of clear, factual, and current information to the public.

Reviewing and Updating Plans:

Recovery operations plans, mutual aid agreements, and assigned roles should be reviewed and updated periodically in conjunction with related plans and regulations governing recovery activities. Changes in the community including demographics, development trends, mitigation strategies and State and Federal guidelines should be reviewed for consideration when revising and updating. Revisions should be made to correct deficiencies or to accommodate changes

within the community or City organization that would affect recovery activities (City of Shoreline, 2010). Recovery planning and operations should be highly adaptable to accommodate the needs of a dynamic community. Monitoring and revision of recovery planning efforts can increase their flexibility and effectiveness.

APPENDICES

Appendix A: Definitions

The following definitions relate to and are often used in the local, state, and federal recovery process:

California Building Officials (CALBO): A non-profit corporation dedicated to promoting public health and safety in building construction through responsible legislation, education, and building code development. The Safety Assessment Program (SAP) offered by the California Office of Emergency Services (Cal OES) is utilized during the disaster response and disaster recovery phases of a City or County's emergency operations (California Building Officials, 2019).

Disaster - An event expected or unexpected, in which a community's available, pertinent resources are expended; or the need for resources exceeds availability; and in which a community undergoes severe danger; incurring losses so that the social or economic structure of the community is disrupted; and the fulfillment of some or all of the community's essential functions are prevented (City of Shoreline, 2010).

Emergency - An event, expected or unexpected, involving shortages of time and resources; that places life, property, or the environment in danger; that requires response beyond routine incident response resources (City of Shoreline, 2010).

Emergency Operations Center (EOC) - A designated site from which public, private, or voluntary agency officials can coordinate emergency operations in support of on scene responders (City of Shoreline, 2010).

Hazard Mitigation Grant Program (HMGP) - A program authorized under Section 404 of the Stafford Act, which provides funding for hazard mitigation projects that are cost effective and complement existing post-disaster mitigation programs and activities by providing funding for beneficial mitigation measures that are not funded through other programs (City of Shoreline, 2010).

Incident Command System (ICS) - An all-hazard, on-scene functional management system that establishes common standards in organization, terminology, and procedures (City of Shoreline, 2010).

Individual Assistance (IA) - Supplementary federal assistance available under the Stafford Act to individuals, families, and businesses which include disaster housing assistance, unemployment assistance, grants, loans, legal services, crisis counseling, tax relief, and other services or relief programs (City of Shoreline, 2010).

Non Governmental Organization (NGO) - A nongovernmental entity that serves the interests of its members, individuals, or institutions and is not for private benefit (FEMA, 2007).

Mitigation - Actions taken to eliminate or reduce the degree of long term risk to life, property, and the environment from natural and technological hazards. Mitigation assumes our communities are exposed to risks whether or not an emergency occurs. Examples of mitigation City of are: building and fire codes, land acquisition equipment and computer tie downs, safety codes, statutes and ordinances are: building and fire codes, land acquisition equipment and computer tie downs, safety codes, statutes and ordinances (City of Shoreline, 2010).

Mutual Aid Agreement - The California Disaster and Civil Defense Mutual Aid Agreement states that when necessary, all public entities within the state must be available to assist each other. Entities are encouraged to develop a plan for mobilization of its resources for assistance (State of California, 1950).

Presidential Declaration - Formal declaration by the President that an Emergency or Major Disaster exists based upon the request for such a declaration by the Governor and with the verification of FEMA preliminary damage assessments (City of Shoreline, 2010).

Recovery - Activity to return vital life support systems to minimum operating standards and long-term activity designed to return life to normal or improved levels, including some form of economic viability. Recovery measures include, but are not limited to, crisis counseling, damage assessment, debris clearance, restoration of transportation assets such as roads, airports and transit systems, disaster loans and grants, disaster unemployment assistance, public information,

reassessment of emergency plans, reconstruction, temporary housing and business resumption full scale (City of Shoreline, 2010).

Resilience - The ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events (American planning Association, 2014).

Robert T. Stafford Disaster Relief and Emergency Assistance Act - (Public Law 93-288, as amended by Public Law 100-707) - The act that authorizes the greatest single source of federal disaster assistance. It authorizes coordination of the activities of Federal, state, and volunteer agencies operating under their own authorities in providing disaster assistance, provision of direct federal as necessary, and provision of financial grants to individuals and families. This act is commonly referred to as the Stafford Act (City of Shoreline, 2010).

Temporary Housing - Non-shelter housing for individuals and households lasting between three weeks and six months. Used to provide housing for victims whose homes sustained moderate damage requiring repairs, but not permanent replacement (San Diego County, 2007).

Appendix B - Aspects of Recovery Not Considered In This Report

Our scope for this Practicum Project was only able to include short and long-term resources in relation to residents, businesses, and schools and focused on resources that were relevant to the City of Arcata. Important aspects of recovery that were not within our scope for this project include:

- Recovery needs of agriculturalists
- Specifications of recovery needs for elderly and disabled residents
- Recovery needs for pets
- How city of Arcata demographics affect the recovery process
- Predicted behavior and impacts of a wildfire in or near the City of Arcata and how predicted behavior and impacts would alter the recovery process
- Veteran-specific resources
- Impacts of the loss of culturally significant sites, such as historic buildings and the cultural recovery process as a result of that loss.

Appendix C - Fact Sheets and Guides

This appendix contains detailed information about wildfire recovery fact sheets and guides offered by various state and federal agencies. The fact sheets and guides cover information such as air quality, business planning for emergencies, city emergency preparedness, fire cleanup, debris removal, removal of dead animals, resident preparedness, and much more:

Air Quality

Center for Disease Control and Prevention - Wildfire Smoke

Wildfire smoke can harm you in multiple ways. Smoke can hurt your eyes, irritate your respiratory system, and worsen chronic heart and lung diseases. This fact sheet tells you how you can protect your health and be safe if you are exposed to wildfire smoke.

<https://www.cdc.gov/disasters/wildfires/smoke.html>

Environmental Protection Agency (EPA) Smoke Ready Toolbox For Wildfires

Public health officials and others can use the resources in the Smoke Ready Toolbox to help educate the public about the risks of smoke exposure and actions people can take to protect their health.

<https://www.epa.gov/smoke-ready-toolbox-wildfires>

Environmental Protection Agency (EPA) Wildfire Smoke - A Guide for Public Health Officials

Designed to help local public health officials prepare for smoke events, to take measures to protect the public when smoke is present, and communicate with the public about wildfire smoke and health.

https://ww3.epa.gov/airnow/wildfire_may2016-revised.pdf

Business Planning for Emergencies:

[Ready.gov - Preparedness Planning for Your Business](#)

The Ready Business program helps business leaders make a preparedness plan to get ready for these hazards.

<https://www.ready.gov/business>

[Arkansas Small Business and Technology Development Center - Checklist for](#)

[Re-Opening Your Business After a Disaster](#)

<http://asbtcd.org/wp-content/uploads/2018/09/Checklist-Reopening-After-Disaster-ASBTDC.pdf>

City Emergency Preparedness:

[California Building Officials Emergency Preparedness Committee - Safety](#)

[Assessment Program \(SAP\) Mutual Aid Guide](#)

The Safety Assessment Program (SAP) offered by the California Office of Emergency Services (Cal OES) is utilized during the disaster response and disaster recovery phases

of a City or County emergency operations. Reading this will assist the Building Official in developing a more comprehensive understanding the management of SAP resources in response to an emergency or disaster.

https://www.calbo.org/sites/main/files/file-attachments/calbo_mutual_aide_guide_update_d_july_2018.pdf

Fire Cleanup & Debris Removal

Department of Toxic Substances Control (DTSC) - Emergency Guidance on Wildfires #1 Handling Ash, Debris and other Hazardous Materials from Burned Structures

Actions taken to immediately mitigate and contain and control hazardous waste releases are exempt from hazardous waste permit requirements after the Governor has declared the county in a State of Emergency. This document provides general guidance for the management of these materials.

https://www.dtsc.ca.gov/HazardousWaste/upload/Fire_Emergency_Guidance_FS_1.pdf

Department of Toxic Substances Control (DTSC) - Emergency Guidance on Wildfires #2 Management Options for Expedited Collection of Hazardous Wastes from Burned Areas

Given the extent of the fire disaster in your area and the need for rapid recovery, the Department of Toxic Substances Control (DTSC) has prepared this fact sheet to guide persons in the impacted areas in managing hazardous waste(s) separated from fire ash and debris.

<https://www.dtsc.ca.gov/HazardousWaste/upload/Emergency-Guidance-on-Wildfires-2.pdf>

Environmental Protection Agency (EPA) - Guidance for Conducting Emergency Debris, Waste and Hazardous Material Removal Actions Pursuant to a State or Local Emergency Proclamation 2011

The purpose of this guidance is to identify and standardize the approach for local and state agencies to utilize for conducting debris, waste, and hazardous material removal activities under a local or state Proclamation of a State of Emergency.

<https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/Disaster-Documents-2011yr-GuideRemoval.pdf>

Federal Emergency Management Agency (FEMA) Federal Insurance and Mitigation Administration - After the Fire: Advice for Salvaging Damaged Family Treasures Fact Sheet

Cherished family heirlooms that survive a fire are often covered with soot and ash, requiring prompt and gentle attention to avoid further damage. This fact sheet provides basic guidelines from professional conservators for those who are searching for, and finding, family treasures amid the ruins.

https://www.fema.gov/media-library-data/1452020463438-03d4365a46c620bdd1ad1e854379c237/Fire_FIMA_Fact_Sheet_2015_508.pdf

Removal of Dead Animals

California State Water Resources Control Board's and Regional Water Quality Control Boards' - Recommendations for Disposal of Animal Carcasses Associated with Fires 2003

This document provides guidance to individuals and to federal, State, and local agencies dealing with the disposal of animal mortality resulting from a fire in an area where the Governor of California has declared a State of Emergency.

<https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/Disaster-Documents-Carcasses.pdf>

Center for Disease Control and Prevention - Animal Disposal Following an Emergency

Most states have their own guidelines on disposal of dead animals, so people with questions regarding the specific situation in their state are highly encouraged to contact local or state health and agricultural officials for clarification.

<https://www.cdc.gov/disasters/animaldisposal.html>

Resident Preparedness

Center for Disease Control and Prevention - What to Do Before, During, and After, Wildfire

Prepares residents to take steps to be ready for a wildfire and prepare their home and landscaping to reduce their risk. Prepares residents how to protect themselves and their family from a wildfire, evacuate safely during a wildfire, and how to stay healthy when they return home.

<https://www.cdc.gov/disasters/wildfires/index.html>

Federal Emergency Management Agency (FEMA) - After the Fire

Prepares residents for where to begin and who can help when a fire occurs.

https://www.usfa.fema.gov/downloads/pdf/publications/fa_46.pdf

Federal emergency Management Agency (FEMA) - Robert T. Stafford Disaster Relief and Emergency Assistance Act Individuals and Households Program Fact Sheet

FEMA's Individuals and Households Program (IHP) provides financial and direct services to eligible individuals and households affected by a disaster who have uninsured or underinsured necessary expenses and serious needs. IHP is not a substitute for insurance and cannot compensate for all losses caused by a disaster it is intended to meet the survivor's basic needs and supplement disaster recovery efforts.

<https://www.fema.gov/media-library/assets/documents/24945>

Helping Handbook for Individuals and Small Businesses Affected - Fall 2018 California Wildfires

Provides up-to-date, practical information for individuals, families, and small businesses on subjects including housing, government benefits, insurance, FEMA assistance, replacement of lost documents, and fraud prevention.

<https://media2.mofo.com/documents/fall-2018-ca-wildfires-helping-handbook.pdf>

Humboldt County Community Wildfire Protection Plan 2019

Aims to inspire and guide action over the next five years to prepare Humboldt County residents and landscapes for wildfire.

<https://humboldt.gov/2431/CWPP-2019>

Humboldt County Living With Wildfire in Northwestern California (3rd Edition)

To raise awareness about wildfire hazards and provide tools and information that can help residents and visitors prepare their families, properties, and landscapes to survive and thrive in a wildfire-prone environment.

<https://humboldt.gov/DocumentCenter/View/72087/Living-with-Wildfire-in-Northwestern-California-3rd-Edition>

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