



WILDFIRE RISK AND RESPONSE IN SAN MATEO COUNTY

[Issue](#) | [Summary](#) | [Glossary and Abbreviations](#) | [Background](#) | [Discussion](#) | [Findings](#) | [Commendation](#)
[Recommendations](#) | [Requests for Responses](#) | [Methodology](#) | [Bibliography](#) | [Appendixes](#) | [Responses](#)

ISSUE

How have emergency service organizations in San Mateo County responded to the increased risk of wildfire? What steps can they take to improve emergency notifications to residents and their evacuation from danger zones in the event of a wildfire?

SUMMARY

San Mateo County faces increasing risk of a significant wildfire.¹ Lower precipitation and higher average temperatures have reduced the moisture content of the fuels that feed a fire, while aggressive fire suppression has increased the amount of fuel available.² Increased human presence along the wildland-urban interface (WUI) – the area where fire-prone forests meet human habitation – has raised the likelihood of igniting these fuels, because human actions are the primary causes of most fires in WUIs.³ While fire suppression activities confine most fires to two acres or less, certain wind conditions could render a fire in the WUI unmanageable and cause it to spread rapidly across a much larger area. Smoke from a wildfire could also degrade residents' health in large sections of the county.

This report documents the countywide risk that a wildfire poses to people, property, and critical infrastructure. The report also examines the capabilities and processes of fire, law enforcement, and emergency services agencies to prevent and prepare for fires, to fight the fire, to provide emergency notification to residents in the event of fire, to facilitate residents' evacuation from danger zones, and to shelter displaced residents. The report concludes by addressing the need to increase public awareness of emergency response plans.

The Grand Jury commends the state and local fire agencies in the county for taking effective actions to counter the increasing risk of a major wildfire through their efforts in prevention, planning and organizing fire-fighting capabilities. Having said that, the report focuses on the need to improve emergency notification and planning for evacuation. The Grand Jury finds that all emergency notification systems can be compromised during a conflagration, which makes advance public knowledge of alternative evacuation routes crucial for public safety. With this in mind, the Grand Jury recommends that the San Mateo County Fire Department and local fire agencies produce and distribute emergency response information including alternative evacuation routes for county communities. The Grand Jury also recommends methods for informing a broader range of County residents of these plans.

¹ CALFIRE, San Mateo — Santa Cruz Unit, *Community Wildfire Protection Plan*, 2010.

² Association of Bay Area Governments (ABAG), *White Paper: Area Wildland Urban Interface Review of Risks, Plans, and Strategies*, ABAG and Metropolitan Transportation Agency, 2018, p. 7.

³ Ibid.

GLOSSARY AND ABBREVIATIONS

- Association of Bay Area Governments (ABAG) – The regional planning agency for the nine counties and 101 cities and towns of the San Francisco Bay Region.
- California Department of Forestry and Fire Protection (CAL FIRE) – The state agency primarily responsible for fire prevention and suppression in state responsibility areas.
- Community Emergency Response Team (CERT) – A program that educates volunteers about disaster preparedness and trains them in basic disaster response skills.
- Emergency Operations Center (EOC) – The official or agency charged with directing and coordinating the response to a major emergency.
- Emergency Operations Plan (EOP) – A plan describing the responsibilities of government agencies in responding to major emergencies.
- Federal Emergency Management Agency (FEMA) – a US government agency with responsibility for coordinating responses to disasters in the United States.
- Local Responsibility Area (LRA) – An area in which a local fire agency has primary responsibility for fire prevention and suppression.
- Office of Emergency Services, San Mateo County Sheriff's Department (OES) – County office with primary responsibility for developing and administering the SMC EOP.
- San Mateo County Alert (SMC Alert) – A system for notifying San Mateo County residents of an array of emergencies.
- San Mateo County Human Services Agency (HSA) – The County agency with primary responsibility for arranging shelters during an emergency.
- San Mateo/Santa Cruz Unit of CAL FIRE (CZU) – The CAL FIRE unit with primary responsibility for fire prevention and suppression in state responsibility areas of San Mateo and Santa Cruz Counties.
- Standardized Emergency Management System (SEMS) -- a structure for coordinating multi-agency responses to emergencies.
- State Responsibility Area (SRA) – An area in which CAL FIRE has primary responsibility for fire prevention and suppression.
- Telephone Emergency Notification (TEN) – A reverse 911 system for sending emergency notifications to landlines.
- Wireless Emergency Alert (WEA) – a system for targeting emergency alerts to cell phones in specific geographic areas.
- Wildland Urban Interface (WUI) – The area where fire-prone forests meet human habitation.

BACKGROUND

Similar to other areas of California, San Mateo County faces an increasing risk of conflagration – an intense fire that causes widespread land and property damage and threatens lives. Although Bay Area conflagrations date back at least to the San Francisco earthquake in 1906, they have become increasingly common in recent decades.⁴ Examples include the Oakland Hills fire in 1991, which consumed 2,800 houses and killed 25 people and the Sonoma fire in October 2017, which destroyed 5,636 structures and caused 22 deaths. During 2018 alone, Northern California experienced huge fires in Redding, Mendocino, Yosemite, and Paradise. With 86 dead and over 18,000 structures destroyed, the Camp Fire in Paradise became the most destructive wildfire in California history. Nine of the ten most destructive fires in California history occurred since 2000; six of those occurred since 2015.⁵

Scientists and fire officials agree that climate changes producing higher average temperatures and less annual precipitation have created longer dry periods that increase the fuel loads in forests and extend the active fire year.⁶ The Sierra snowpack has declined as winter storms arrive later and end earlier.⁷ Moreover, an increasing fraction of California’s population has settled in new housing developments on the “wildland-urban-interface” (WUI) – the area where fire-prone forests meet human habitation.⁸ Despite increasing fire danger, new home construction continues in such high-risk areas that are often distant from fire services.⁹ Under these conditions, accidental and deliberate human actions ignite the vast majority of wildfires. Carelessness with campfires, sparks from mechanical devices, failures of gas and electrical infrastructure, arson, and other human actions account for 85 percent of California fires.¹⁰

Once a fire ignites, wind intensity, fuel availability, and topography largely govern the speed with which it spreads and the amount of damage to life and property that it causes. As the extremely hot air that wildfires create at their center rises, it produces a vacuum that pulls cooler

⁴ http://www.fire.ca.gov/communications/downloads/fact_sheets/Top20_Destruction.pdf

⁵ *Ibid.*

⁶ J.T. Abatzoglou, A.P. Williams (2016), “Impact of anthropogenic climate change on wildfire across western US forests,” *Proceedings National Academy of Science* 113:42, (2016): 11770–11775. Kurtis Alexander, “Scientists See Fingerprints of Climate Change All Over California’s Wildfires,” *San Francisco Chronicle*, August 3, 2018. ABAG, White Paper..., p. 7.

⁷ Louise Bedsworth, Dan Cayan, Guido Franco, Leah Fisher, Sonya Ziaja, *Statewide Summary Report. California’s Fourth Climate Change Assessment* (Sacramento: California Governor’s Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission. 2018, pp. 22, 26-28.

⁸ Thomas Fuller, “California’s Chief Firefighter Looks Back on 30 Years of Infernos,” *New York Times*, December 13, 2018. California Legislative Analyst’s Office, *A Primer: California’s Wildland Fire Protection System*, April 12, 2005.

⁹ Ball, Jeffrey, “Why Californians Were Drawn Toward the Fire Zones,” *Wall Street Journal*, December 7, 2018. <https://www.wsj.com/articles/why-californians-were-drawn-toward-the-fire-zones-1544202053?mod=searchresults&page=1&pos=1>

¹⁰ Jennifer K. Balch, Bethany A. Bardley, John T. Abatzoglou, R. Chelsea Nagy, Emily J. Fusco, and Adam L. Mahood, “Human-started wildfires expand the fire niche across the United States,” *Proceedings of National Academy of Sciences*, February 27, 2017. 201617394; published ahead of print February 27, 2017. <https://doi.org/10.1273/pas.1617394114>. Lisa M. Krieger, “California Wildfires: It’s a People Problem,” *The Mercury News*, August 5, 2018. Louise Bedsworth, et al, *Ibid*, p. 28.

air into the fire from all directions. When this upward column of hot air is sustained, it may lift and transport burning embers long distances in front of the main conflagration to begin additional blazes. Wind-borne embers from the deadly Camp Fire in Paradise in 2018 started fires as far as two miles in advance of the main blaze.¹¹ Alternatively, if the upward-flowing column of heated air collapses in one area, a strong, hot wind moves toward the ground and then rapidly spreads in advance of the fire, igniting blazes ahead of the main fire. The resulting fires move rapidly, change course unpredictably, and can overwhelm the efforts of fire fighters to contain the conflagration, as the Carr fire did near Redding in 2018.¹²

DISCUSSION

Wildfire Risk in San Mateo County

Much of San Mateo County consists of WUI. Just over 35 percent of the land in the county has a high likelihood of fire ignition, and about half of that area has a very high likelihood (respectively described as High Hazard and Very High Hazard zones on state and local fire maps in Appendix A).¹³ Within these areas, state fire building codes set requirements for vegetation management and fire-resistant building materials on new construction and some remodeling. Most of the Very High Hazard Zone lies in sparsely populated areas west of I-280. The Crystal Springs reservoirs, San Andreas Lake, and I-280 form a firebreak that might slow the eastward progress of a fire started in much of this area, but wind-driven fires have produced embers that jumped rivers and reservoirs.¹⁴ Very High Hazard areas in the cities of Belmont, Hillsborough, Redwood City, San Carlos, and San Mateo lie east of I-280 and the reservoirs, where there are few natural barriers to slow the progress of a fire headed toward San Francisco Bay.¹⁵

Most residential, commercial, and industrial areas are located closer to the Bay or ocean—outside of the ignition hazard zones.¹⁶ However, the area of wildfire vulnerability is broader than those zones. High winds moving through gaps in the coastal range could expand the perimeter of a fire quickly, making it a countywide threat to lives and property. In November 2018, the deadly Camp Fire provided an example of this scenario: the ignition occurred in a sparsely settled area of Butte County, but within one and a half hours, the fire travelled six miles to reach the town of Paradise. Over the next six to eight hours, the fire destroyed most of the town.¹⁷ Officials from CAL FIRE note that the hills west of I-280 in San Mateo and Santa Clara Counties have a similar

¹¹ Paige St. John, Joseph Serna, and Rong-Gong Lin III., “Here’s how Paradise ignored warnings and became a deathtrap,” *Los Angeles Times*, December 30, 2018.

¹² Edward Struzik, *Firestorm* (Washington, D.C.: Island Press, 2017), chap. 2. Robinson Meyer, “The Simple Reason That Humans Can’t Control Wildfires,” *The Atlantic*, November 13, 2018. Lizzie Johnson, “150 Minutes of Hell,” *Sacramento Bee*, December 5 2018.

¹³ http://fire.ca.gov/fire_prevention/fhsz_maps_sanmateo

¹⁴ St. John, Serna, and Lin III, “Here’s How Paradise Ignored Warnings....”

¹⁵ Zachary Clark, “Belmont prepares for wildfires,” *Daily Journal*, January 12, 2019.

https://www.smdailyjournal.com/news/local/belmont-prepares-for-wildfires/article_5b5b8f24-1617-11e9-aec9-a79b53e945a5.html

¹⁶ San Mateo County, *Hazard Vulnerability Assessment: Appendix to the Emergency Operations Plan*, San Mateo County Sheriff’s Homeland Security Division, Office of Emergency Services. January 2, 2015, p. 58.

¹⁷ <https://www.nytimes.com/interactive/2018/11/18/us/california-camp-fire-paradise.html>

fuel load and topography as the terrain around Paradise,¹⁸ and warn that “[w]hen ignitions occur during unfavorable weather, in areas with poor access, fires can rapidly increase to an unmanageable size prior to fire crews’ arrival.”¹⁹

Wildfire Suppression in San Mateo County

State and local fire agencies share fire suppression responsibilities in San Mateo County. The state agency, CAL FIRE, takes primary responsibility for unincorporated state responsibility areas (SRA), which include most of the Very High Hazard zones. Local fire agencies take primary responsibility for incorporated local responsibility areas (LRA).²⁰

In practice, responses to a fire are coordinated among these jurisdictions. San Mateo County has a boundary drop mutual aid system, in which the closest fire suppression resource responds, irrespective of whether the fire occurs in an LRA or an SRA.²¹ If a fire exceeds the resources of the initial responders, mutual aid agreements provide for assistance from other agencies in the County, from other counties, or even states if needed. However, the presence of multiple fires may limit the resources that are available through mutual aid agreements at any particular time.²²

Most firefighting consists of responding to an active fire. Following recent California wildfires and in order to decrease response times for fire suppression resources to arrive at a wildfire, the California Fire Chiefs Association recommended a “proactive” approach to wildfire, which involves prepositioning fire engines in hazardous areas during periods of high fire danger. Fire officials may request support for prepositioning from a \$25 million fund administered by the California Office of Emergency Services.²³ San Mateo County has not yet made a request for pre-positioning funds.

Notwithstanding the substantial firefighting capabilities available, firefighters continue to stress the limitations of their abilities in a conflagration. “In the event of a large wildfire, we know there are not enough emergency responders and equipment to protect each and every home. In some cases, because of the size, speed, intensity of the fire, or home construction materials and surrounding vegetation, homes can ignite and potentially be destroyed before emergency responders can arrive. Often, there are more homes to protect than there are firefighters to respond. Fire prevention efforts cannot be the responsibility of firefighting professionals alone, homeowners must consider the possibility that their home may have to stand in the face of a wildland fire without immediate firefighter protection. In order for a home to survive such an emergency, it must be able to avoid ignition.”²⁴

¹⁸ Dremann, Sue, “Conditions in Palo Alto area hills are ripe for wildfire,” *Palo Alto Online*, November 19, 2018. <https://www.paloaltoonline.com/news/2018/11/19/conditions-in-palo-alto-area-hills-are-ripe-for-wildfire>

¹⁹ CAL FIRE (CZU), *San Mateo County – Santa Cruz County Community Wildfire Protection Plan* – 2010, p. 8.

²⁰ Grand Jury interviews.

²¹ If warranted by an emergency, the response would also include CAL FIRE state resources including aircraft and hand crews when available. Written communication to Grand Jury.

²² Grand Jury interview.

²³ Ibid.

²⁴ CALFIRE, San Mateo-Santa Cruz Unit, *Community Wildfire Protection Plan*, 2010, pp. 12-13.

Fire Prevention and Preparation Activities

CAL FIRE, local fire agencies, and various Fire Safe Councils conduct a variety of fire prevention activities, including fuel reduction (controlled burns), vegetation management, and creation of firebreaks.²⁵ Public funds from the Federal Emergency Management Agency (FEMA), as well as state, County, and city budgets support many of these projects,²⁶ but public funds may only be used to fund projects on public lands. Upon request, however, local fire agencies can help residential homeowners by conducting “wildland interface inspections” on private property, noting hazardous conditions and encouraging clearance of a perimeter of brush and deadfall around a property to create “defensible space.” In certain cases, fire agencies can also issue citations to residents for fire code violations.²⁷

Local fire agencies also provide residents with education on fire safety and personal preparation for a wildfire emergency. Given the speed with which some wildfires move, the educational outreach stresses the importance of advance preparation for an emergency evacuation. Fire agencies advise families to prepare an evacuation checklist and to organize a kit with critical medications, important papers, and an “Evacuation Route Map with at least two routes.”²⁸ CAL FIRE also provides survival instructions for people who become trapped in a car, in their home, or on foot.²⁹ Most fire agencies provide Community Emergency Response Team (CERT) classes, training interested residents in fire safety, utility controls, disaster medical training, and basic search and rescue skills.³⁰

Emergency Response to a Wildfire in San Mateo County

Because fast-moving wildfires leave little time for orderly planning, packing, and escape, effective emergency notification, evacuation, and sheltering procedures become crucial to public safety and recovery. Analyses of recent conflagrations in Northern California by the Sonoma County Grand Jury and the Los Angeles Times identify inadequacies in emergency response that may have resulted in loss of life and property.³¹

In San Mateo County, the Emergency Operating Plan (EOP) prepared by the Office of Emergency Services (OES) in the San Mateo County Sheriff’s Department establishes the policies, procedures and responsibilities governing responses to emergencies within California’s

²⁵ Ibid, pp. 20-29.

²⁶ Fire Safe San Mateo County, whose members include County fire agencies, land management agencies, and large private landowners, conducts fuel reduction projects funded by a variety of public and private sources. See Fire Safe San Mateo County, *Living with Fire in San Mateo County*, 2016 edition and www.firesafesanmarateo.org.

²⁷ Clark, “Belmont prepares....”

²⁸ CAL FIRE. *Evacuation Tips*.

http://www.calfire.ca.gov/communications/downloads/fact_sheets/Evacuation.pdf

CAL FIRE, *Prepare for Wildfire*, 2017. <http://www.readyforwildfire.org/Emergency-Supply-Kit/>; Central County Fire, *Ready-Set-Go Plan* <http://www.ccfdonline.org/wp-content/uploads/2018/01/Ready-Set-Go-Plan.pdf>

²⁹ CAL FIRE. *Evacuation Tips*....

³⁰ Grand Jury interviews.

³¹ 2017/18 Sonoma County Civil Grand Jury, *October Firestorm Emergency Response*.

<http://sonoma.courts.ca.gov/sites/all/assets/pdfs/general-info/grand-jury/2017-2018/FinalReport.pdf>, St. John, Serna, and Lin III, “Here’s How Paradise Ignored Warnings....”

Standardized Emergency Management System (SEMS) framework.³² The SEMS framework was developed to manage multi-agency, multi-jurisdiction emergencies. Local Emergency Management Coordinators develop EOPs for individual cities, adjusting the OES document to meet local special circumstances.³³

Emergency Notification.

The County’s OES has responsibility for initiating emergency notifications.³⁴ The County currently has a mixture of “opt-in” and “opt-out” countywide emergency notification systems. Opt-in systems require residents to sign up for notification; opt-out systems include residents automatically, unless they choose to remove themselves from the notification list. Opt-out systems provide superior coverage of the target population.

Two opt-out systems provide notification of *the most extreme threats* to the County.³⁵ Wireless Emergency Alerts (WEA) enables government officials to target emergency alerts to cell phones in specific geographic areas. (Amber Alerts provide an example of WEA notification.) Wireless companies volunteer to participate in WEA.³⁶ When there are imminent threats to public safety in an area, the customers of those companies receive a text-like message accompanied by a unique attention signal and vibration, which may be helpful to people with hearing or vision-related disabilities.³⁷ This system appears to have three limitations: (1) not all wireless companies volunteer in the program, although the four major carriers—AT&T, Verizon, T-Mobile, and Sprint—all support WEA messaging throughout California; (2) there are small pockets of limited cellular coverage throughout the county due to topography; and (3) the system is vulnerable to the destruction of cell towers in a wildfire.³⁸

Telephone Emergency Notification (TEN), a reverse 911 system, in principle reaches all landlines, but in practice would be used on targeted areas within the county. Tests of this system under ideal conditions reveal that its effectiveness diminishes as the size of the contact area increases. In a notification sent to homes in roughly one square mile area of the county, seventy-five percent of the calls were answered by a person or answering machine, and the test was completed in less than two minutes. However, a test notification sent to “all of the county North of Highway 92 resulted in phone system congestion...and generated calls from about 8pm until 4am the next day.”³⁹ About 30 percent of test calls reach a “not in service” message. Similar results emerged from a test of the telephone notification system in Sonoma County,⁴⁰ and in Paradise, only 60 percent of about 6,000 cell phone calls placed in the first ten minutes of the

³² San Mateo County Sheriff’s Department, Office of Emergency Planning, *Emergency Operations Plan: Basic Plan*, 5/22/15. <http://hsd.smcsheriff.com/emergency-plans>

³³ Grand Jury interview.

³⁴ Grand Jury interview.

³⁵ Ibid.

³⁶ <https://www.fcc.gov/consumers/guides/wireless-emergency-alerts-wea>

³⁷ Ibid.

³⁸ Grand Jury interview and Grand Jury correspondence.

³⁹ Grand Jury correspondence.

⁴⁰ Sonoma County, Sonoma County Operational Area, *Alert and Warning Functional Exercise After Action Report / Improvement Plan*, September 10 and 12, 2018.

November 2018 evacuation reached a person or answering machine.⁴¹ The TEN system is also vulnerable to the destruction of infrastructure during a wildfire.

A third system, SMC Alert, provides for notification of a broader array of threats to public safety in the county but requires the public to enroll (i.e., opt-in). Once enrolled, residents automatically receive notifications by email, cell phones, smartphones, tablets, or voice messages to landlines. However, only 11 percent of the county residents have enrolled in SMC Alert, and enrollment in some communities falls as low as three percent.⁴² SMC Alert is also vulnerable to infrastructure destruction during a conflagration. All three notification systems would be used in conflagrations and other major emergencies.

A 2018 state law provides an opportunity for converting SMC Alert from an opt-in system to an opt-out system.⁴³ Senate Bill 821 authorizes counties and cities to enter into agreements “to access the contact information of resident account holders through the records of a public utility or other agency responsible for water service, waste and recycling services, or other property-related services for the sole purpose of enrolling county residents in a county-operated public emergency warning system.”⁴⁴ The bill also permits residents to opt out of this system. On November 13, 2018, the SMC Board of Supervisors unanimously approved a resolution calling for the County OES “to adopt the statewide protocol for emergency alerts as established by Senate Bill 821.”⁴⁵ Experience with other opt-out systems indicates that converting SMC Alert to an opt-out system and using utility company contact information to expand the number of cell phones it reaches should substantially expand the proportion of county residents receiving notification of public safety emergencies.⁴⁶ San Mateo County emergency service officials are awaiting guidance from the California Office of Emergency Services on details of implementing SB 821.⁴⁷

In short, the Grand Jury found that all the countywide electronic notification systems have limitations, including electronic notification systems that are vulnerable to infrastructure destruction or power cuts by utility providers in a conflagration.⁴⁸ As a result, law enforcement and emergency management officials stress the importance of “boots on ground” (door-to-door) notification to compensate for technology limitations and the reluctance of some residents to leave a threatened area.⁴⁹

⁴¹ Lisa M. Krieger, “Lessons from Camp Fire: Staying alive in California fire country.” *The Mercury News*, November 17, 2018.

⁴² *Ibid.*

⁴³ Senate Bill No. 821 An act to add Section 8593.4 to the Government Code, relating to emergency services. [Approved by Governor September 21, 2018.]

⁴⁴ http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB821

⁴⁵ San Mateo County Board of Supervisors File # 18-1034.

⁴⁶ For example, only five percent of county residents opted out of the Peninsula Clean Energy system. Grand Jury interview.

⁴⁷ Grand Jury interview.

⁴⁸ Krieger, *Ibid.*

⁴⁹ Grand Jury interview.

The Grand Jury also found that the work of emergency responders is not threatened by the vulnerabilities of infrastructure used to notify county residents. Their radio communications rely on hardened “repeater sites” within cinder block buildings surrounded by firebreaks to maintain communication between geographic areas.⁵⁰

Emergency Evacuation.

When a fire threatens life and/or property, the relevant fire authority—CAL FIRE in an SRA or a local fire department in an LRA—has responsibility for ordering an evacuation of the threatened area, with the concurrence of law enforcement agencies that are responsible for implementing an evacuation order. Reports from recent major wildfires in California indicate that evacuations can be congested and chaotic, with lives lost when fire reached cars trapped on clogged escape routes.⁵¹ Emergency service managers note that wildfires present a two-way problem on potential evacuation routes—residents need to exit on the route while emergency vehicles need to respond to the fire threat and manage the evacuation.⁵² A decision not to issue WEA notifications to all cell phones in the 2017 Sonoma County fires and the deadly 2018 Camp Fire in Paradise was partly out of fear of causing panic and traffic jams on the two main escape routes.⁵³ During the course of a serious wildfire in San Mateo County, the relevant state or local fire agency will order an evacuation of threatened areas.⁵⁴

As noted earlier, state and county fire agencies provide information on how families should prepare for an emergency evacuation. Yet, since the location and direction of a wildfire will determine which evacuation routes are safe, emergency service managers in the County do not wish to focus residents’ attention on a *specific* evacuation route in advance.⁵⁵ Likewise, the habitual route(s) that residents follow for their normal range of activities may not be available in a wildfire emergency. Only after an evacuation is ordered can most county residents learn of viable evacuation routes, from either notification systems, if they remain functional, or law enforcement personnel, if they are available to provide guidance in their neighborhood.

This approach contrasts with CAL FIRE’s recommendation that families organize an emergency escape kit in advance that includes “[a]n Evacuation Route Map *with at least two routes*”⁵⁶ and the California Office of Emergency Services recommendation that families “[b]e familiar *with alternate routes* and other means of transportation out of your area.”⁵⁷ Moreover, since notification systems are unlikely to reach everyone, some cities urge residents to take personal responsibility for determining alternative evacuation routes in advance, so that they can evacuate before they receive an evacuation notice.⁵⁸ The Grand Jury found only four communities in the

⁵⁰ Grand Jury interviews.

⁵¹ Sonoma County Grand Jury, *Ibid*; Simon Romero, Tim Arango, and Thomas Fuller, “A Frantic Call, a Neighbor’s Knock, but Few Official Alerts as Wildfire Closed In,” *New York Times*, November 21, 2018.

⁵² Grand Jury interviews.

⁵³ Simon Romero et al, *Ibid*.

⁵⁴ Grand Jury interviews.

⁵⁵ Grand Jury interviews.

⁵⁶ CAL FIRE, *Evacuation Tips*....

⁵⁷ <https://www.ready.gov/evacuating-yourself-and-your-family>

⁵⁸ Grand Jury interviews.

County that publish advance information about potential evacuation routes—La Honda, Palomar Park, Portola Valley, and Woodside, which together contain less than two percent of the county’s population. The first two examples are compact but informative one-page documents that on one side provide information on what to do if trapped by fire in a home or car or on foot, and on the other provide a map of alternative evacuation routes as well as the name and address of an emergency shelter to which evacuees should proceed (see Appendix B for an example).⁵⁹ The Portola Valley and Woodside documents are much longer with virtually identical wording. Each document includes an identical appendix with alternative evacuation routes mapped for 25 communities within these towns but no information on shelters.⁶⁰ A search of the websites of local fire and emergency service agencies found no similar documents available for the remaining San Mateo County residents. In interviews with the Grand Jury, however, County and city fire and emergency service personnel who were shown the Palomar Park map, acknowledged that maps with alternative evacuation routes could be useful in a wildfire emergency.⁶¹

Emergency Shelter Arrangements.

The San Mateo County Human Services Agency (HSA) has primary responsibility for arranging shelter for displaced residents during a wildfire or other emergency. HSA works with the Red Cross and other agencies to provide these services. The Red Cross has signed Facility Use Agreements with a large number of potential shelter sites. Those sites agree to make their facilities available for sheltering in the event of an emergency, and these agreements provide broad coverage of the county. The potential emergency shelters that have entered into Facility Use Agreements include every high school in the county, most middle schools, colleges, some churches, and some hotel ballrooms. The Red Cross believes there is a potential shelter within a (traffic-free) 20-minute drive of every residential location in the county.⁶²

Based on the type and location of an emergency, fire and law enforcement personnel determine the safe zone where shelter can be provided to evacuees. Once the responsible agencies select one or more shelter(s) within the zone, the Red Cross’ goal is to open and staff the shelter(s) within two to four hours. Since about 90 percent of Red Cross personnel are trained volunteers, two considerations may limit their ability to respond immediately: some volunteers may be occupied with emergencies elsewhere, and others may themselves be victims or evacuees in a local emergency. In such instances, HSA is responsible for opening and staffing shelters in unincorporated county areas, while cities have those responsibilities in incorporated areas. Moreover, the County and the Red Cross have procedures in place for requesting mutual aid assistance from other counties.⁶³ Once open, the shelters provide beds, food, and hygiene.⁶⁴ If

⁵⁹ https://www.cfsfire.org/wp-content/uploads/2018/07/Palomar_Park_Evac.pdf
<https://www.cfsfire.org/wp-content/uploads/2018/07/La-Honda-Plan.pdf>

⁶⁰ <http://www.woodsidefire.org/attachments/article/50/Town%20of%20Woodside%20-%20Unincorporated%20San%20Mateo%20County.pdf>
<http://www.woodsidefire.org/attachments/article/50/Town%20of%20Portola%20Valley%20Evacuation%20Plan.pdf>

⁶¹ Grand Jury interviews.

⁶² Grand Jury interviews.

⁶³ Ibid.

⁶⁴ Grand Jury interviews.

needed, resources from the Health System would be used to meet medical or behavioral health needs. The Red Cross also works with local agencies to find places for people to move from the shelter.⁶⁵

Since the safe zone for sheltering displaced residents cannot be known prior to a wildfire, emergency service personnel do not disclose potential shelter locations in advance. Instead, the Red Cross provides disaster preparedness education that includes guidance on where to get information about shelters during the course of an emergency. At a time when they are coping with a congested and potentially dangerous evacuation, most San Mateo County residents must rely on broadcast media or notification systems that may be vulnerable to fire damage for sheltering information. Only Palomar Park and La Honda, containing less than one percent of County residents, receive information on the name and location of nearby shelters prior to an emergency.

Raising Public Awareness

Experience in other California conflagrations indicates that many residents will not receive emergency evacuation orders sent via text or landline. Tests of such notification systems, even under ideal conditions, show that notifications only reach a small fraction of the population. Infrastructure destruction during a wildfire may limit notification further. The decision by many emergency response agencies not to disclose alternative potential evacuation routes or shelters in advance of an emergency may add uncertainty to an already stressful situation.⁶⁶ Moreover, there are readily available methods for distributing emergency information to a broad segment of San Mateo County residents.

The County Tax Collector's Office confirmed that they could include one-page emergency response information periodically with the property tax bills sent to homeowners.⁶⁷ This information would not go to renters, but would still reach a substantial number of residents.⁶⁸ Information included with property tax bills cannot be targeted on specific areas within the county, but an enclosure could identify a website that provided maps of evacuation routes for communities in San Mateo County.

The County Office of Emergency Services could explore the possibility of using utility contact information to notify County residents of emergency response information. This approach would reach a larger fraction of county residents and permit targeting of community-specific information, such as maps of evacuation routes. In practice, this approach must be consistent with forthcoming state OES guidelines on using the contact information "for the sole purpose of enrolling county residents in a county-operated public emergency warning system," as required by SB821.⁶⁹

⁶⁵ Grand Jury interview.

⁶⁶ Lizzie Johnson, "150 Minutes..."

⁶⁷ Grand Jury interview.

⁶⁸ Renters occupy 38.6 percent of the households in San Mateo County.

<http://www.bayareacensus.ca.gov/counties/SanMateoCounty.htm>

⁶⁹ http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB821

The County Office of Emergency Services could also explore the possibility of providing advance information on alternative evacuation routes in a visual online format, such as the “crisis maps” feature in Google.⁷⁰ The very detailed terrain maps of all areas of the county provided by this feature can show the location of a wildfire and can accept additional information, such as alternative evacuation routes and shelter sites, which can assist residents in planning their response to wildfires and other emergencies.

FINDINGS

- F1. San Mateo County faces an increasing risk of loss of life and widespread property damage caused by wildfires.
- F2. The threats to life, property, and health from a wildfire extend beyond the Wildland Urban Interface in unincorporated San Mateo County and include areas east of I-280.
- F3. CAL FIRE and individual fire agencies have established mutual aid arrangements that increase the resources available to combat a wildfire in San Mateo County.
- F4. CAL FIRE and individual fire agencies have taken actions to reduce fuel loads in San Mateo County.
- F5. Approximately 89% of county residents have not subscribed to the SMC Alert emergency notification system.
- F6. California Senate Bill 821 will enable the County to include residents in SMC Alert unless they choose to opt out of that notification system.
- F7. Emergency notification systems have vulnerabilities that may limit the communications received by residents during a wildfire.
- F8. The location and path of a wildfire influences the choice of safe evacuation routes and shelter locations.
- F9. When a fire is nearby, fire officials in San Mateo County recommend leaving a threatened area *before* an evacuation is ordered.
- F10. Most County and city emergency officials prefer to withhold notification of specific evacuation routes and shelters until an emergency is in progress.
- F11. CAL FIRE and the California OES recommend that residents include information on potential evacuation routes in a household emergency preparedness kit.
- F12. County residents in only four communities (La Honda, Palomar Park, Portola Valley, and Woodside), containing less than two percent of the county population, have received information about alternative emergency evacuation routes and shelter sites in advance of an actual emergency.
- F13. The County Tax Collector’s Office is able to include a one-page guide to emergency preparedness with County property tax bills periodically.

COMMENDATION

- C1. The San Mateo County Grand Jury commends CAL FIRE and individual local fire agencies in the County for the actions they have taken to counter the increased risk of and organize an effective response to a major wildfire.

⁷⁰ https://www.google.org/crisismap/weather_and_events

RECOMMENDATIONS

- R1. In order to expand the number of county residents receiving emergency notifications, the San Mateo County Office of Emergency Services should use the contact information of utility companies within six months of receiving guidance on implementing SB 821 from the California Office of Emergency Services.
- R2. The San Mateo County Office of Emergency Services should use utility contact information to distribute information on emergency response plans in advance of an emergency to the extent permitted under SB 821.
- R3. The San Mateo County Fire Department, working with individual fire agencies, should develop fire preparedness brochures that include maps of *alternative* evacuation routes from their respective communities (similar to the example in Appendix B) by June 30, 2020.
- R4. The San Mateo County Fire Department should produce a website containing the brochures recommended in R3 by June 30, 2020.
- R5. Periodically, beginning July 2020, the San Mateo County Office of Emergency Services should distribute emergency plans including links to maps with alternative evacuation routes with property tax bills.
- R6. The County Tax Collector should include a one-page insert on emergency response to a wildfire with property tax bills periodically, beginning July 2020.
- R7. The San Mateo County Office of Emergency Services should explore the possibility of providing advance information on alternative evacuation routes in a visual online format, such as the “crisis maps” feature in Google by June 30, 2020.

REQUEST FOR RESPONSES

Pursuant to Penal Code Section 933.05, the Grand Jury requests responses as follows:

From the following:

- Office of Emergency Services, San Mateo County Sheriff’s Department
- San Mateo County Board of Supervisors
- San Mateo County Tax Collector’s Office

The San Mateo County Board of Supervisors should be aware that the comment or response of the governing body must be conducted subject to the notice, agenda, and open meeting requirements of the Brown Act.

METHODOLOGY

Documents

- State and local documents on the risk of and response to conflagrations.
- Scientific papers on growing wildfire risk.
- State and County fire statistics.
- County and local emergency operations plans.
- Newspaper and magazine articles.

- Numerous publications assessing the nature of and response to recent California wildfires. See the Bibliography for a comprehensive list of the resources consulted by the Grand Jury.

Interviews

Reports issued by the Civil Grand Jury do not identify individuals interviewed. Penal Code Section 929 requires that reports of the Grand Jury not contain the name of any person or facts leading to the identity of any person who provides information to the Civil Grand Jury.

- CAL FIRE officials.
- City fire department officials.
- County emergency management officials.
- Local emergency management coordinators.
- County and city law enforcement officials.
- A member of the Board of Supervisors.

BIBLIOGRAPHY

- Association of Bay Area Governments (ABAG). *ABAG Multi-Jurisdictional Local Hazard Mitigation Plan*, <https://www.abag.ca.gov/bayarea/eqmaps/mitigation/plan.html> Association of Bay Area Governments and Metropolitan Transportation Commission. *White Paper: Bay Area Wildland Urban Interface: Review of Risks, Plans, and Strategies*. 2018. <http://resilience.abag.ca.gov/wp-content/uploads/Fire-Study-FINAL.pdf>
- Abatzoglou, J.T., Williams A.P. “Impact of anthropogenic climate change on wildfire across western US forests.” *Proceedings National Academy of Science* 113:42, (2016): 11770–11775.
- Alexander, Kurtis. “Scientists See Fingerprints of Climate Change All Over California’s Wildfires.” *San Francisco Chronicle*, August 3, 2018.
- Alexander, Kurtis, Evan Sernoffsky, and Lizzie Johnson. “Tubbs Fire: State Blames Private Electrical Equipment For Deadly Wine Country Blaze. *SFGate*, January 24, 2019. <https://www.sfgate.com/california-wildfires/article/Tubbs-Fire-State-blames-private-electrical-13559073.php>
- Association of Bay Area Governments (ABAG), *White Paper: Area Wildland Urban Interface Review of Risks, Plans, and Strategies*. ABAG and Metropolitan Transportation Agency, 2018.
- Balch, Jennifer K., Bethany A. Bradley, John T. Abatzoglou, R. Chelsea Nagy, Emily J. Fusco, and Adam L. Mahood. “Human-started wildfires expand the fire niche across the United States.” *Proceedings of National Academy of Sciences*. February 27, 2017.
- Ball, Jeffrey. “Why Californians Were Drawn Toward the Fire Zones.” *Wall Street Journal*. December 7, 2018. <https://www.wsj.com/articles/why-californians-were-drawn-toward-the-fire-zones-1544202053?mod=searchresults&page=1&pos=1>
- Bedsworth, Louise, Dan Cayan, Guido Franco, Leah Fisher, Sonya Ziaja. *Statewide Summary Report: California’s Fourth Climate Change Assessment*. (Sacramento: California Governor’s Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission. 2018). <http://www.climateassessment.ca.gov/state/docs/20180827-StatewideSummary.pdf>
- Butte County Grand Jury 2008-2009. Final Report. June 26, 2009, pp. 45-60. <http://www.buttecounty.net/administration/grandjuryreportforfiscalyear2008-2009>
- CALFIRE. San Mateo — Santa Cruz Unit, *Community Wildfire Protection Plan*, 2010.
- CAL FIRE. *Evacuation Tips*. http://www.calfire.ca.gov/communications/downloads/fact_sheets/Evacuation.pdf
- CAL FIRE. *Prepare for Wildfire*, 2017. <http://www.readyforwildfire.org/Emergency-Supply-Kit.pdf>
- California Legislative Analysts Office. *A Primer: California’s Wildland Fire Protection System*. April 12, 2005.
- California Public Utilities Commission, Safety and Enforcement Division, Rulemaking, 15-05-006. *SED-CAL FIRE Joint Assessment and Recommendation Report*. September 19, 2018.

- Central County Fire. *Ready-Set-Go Plan*. 2018. <http://www.ccfdonline.org/wp-content/uploads/2018/01/Ready-Set-Go-Plan.pdf>http://cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Safety/R.15-05-006%20SEDAL%20FIRE%20Joint%20Assesment%20and%20Recommendation%20Report,%209-19-2018.pdf
- Clark, Zachary. “Belmont prepares for wildfires,” *Daily Journal*, January 12, 2019. https://www.smdailyjournal.com/news/local/belmont-prepares-for-wildfires/article_5b5b8f24-1617-11e9-aec9-a79b53e945a5.html
- Dremann, Sue. “Conditions in Palo Alto area hills are ripe for wildfire.” *Palo Alto Online*, November 19, 2018.
- Federal Emergency Management Agency. *National Incident Management System*. 3rd Edition (Washington: U.S. Department of Homeland Security, 2017).
- Fuller, Thomas. “California’s Chief Firefighter Looks Back on 30 Years of Infernos.” *New York Times*, December 13, 2018. https://www.nytimes.com/2018/12/13/us/california-chief-firefighter-retires-ken-pimlott.html?emc=edit_ca_20181214&nl=california-today&nid=7640568220181214&te=1
- Harvey, Brian J. “Human-caused climate change is now a key driver of forest fire activity in the western United States.” *Proceedings of National Academy of Sciences* 113:42, (2016): 11649-11650. www.pnas.org/cgi/doi/10.1073/pnas.1612926113
- Johnson, Lizzie. “150 Minutes of Hell.” *Sacramento Bee*, December 5, 2018. <https://projects.sfchronicle.com/2018/carr-fire-tornado/>
- Keeley, Jon E., and Alexandra D. Syphard. “Historical patterns of wildfire ignition sources in California ecosystems.” *International Journal of Wildland Fire*. 2018. 27, 781–799. <https://doi.org/10.1071/WF18026>.
- Krieger, Lisa M. “California Wildfires: It’s a People Problem,” *The Mercury News*. August 5, 2018.
- Krieger, Lisa M. “Lessons from Camp Fire: Staying alive in California fire country.” *The Mercury News*, November 17, 2018.
- Liu, Jia Coco, Ander Wilson, Loretta J Mickley, Francesca Dominici, Keita Ebisu, Yun Wang, Melissa P Sulprizio, Roger D. Peng, Xu Yue, Ji-Young Son, G. Brooke Anderson, and Michelle L. Bella. “Wildfire-specific Fine Particulate Matter and Risk of Hospital Admissions in Urban and Rural Counties.” *Epidemiology*. 2017 January; 28(1): 77–85.
- Malas, Nour and Harriet Torry. “Economic Damage From California Fires Spreads Further Than Blazes.” *Wall Street Journal*, December 11, 2018. https://www.wsj.com/articles/economic-damage-from-california-fires-spreads-further-than-blazes-11544524201?mod=djem_jiewr_EC_domainid&ns=prod/accounts-wsj
- Meyer, Robinson. “The Simple Reason That Humans Can’t Control Wildfires.” *The Atlantic*, November 13, 2018. <https://www.theatlantic.com/science/archive/2018/11/california-wildfire-why-humans-cant-control-them/575740/>
- Moritz, Max. “California needs to rethink urban fire risk after wine country tragedy,” *The Conversation*, October 23, 2017.

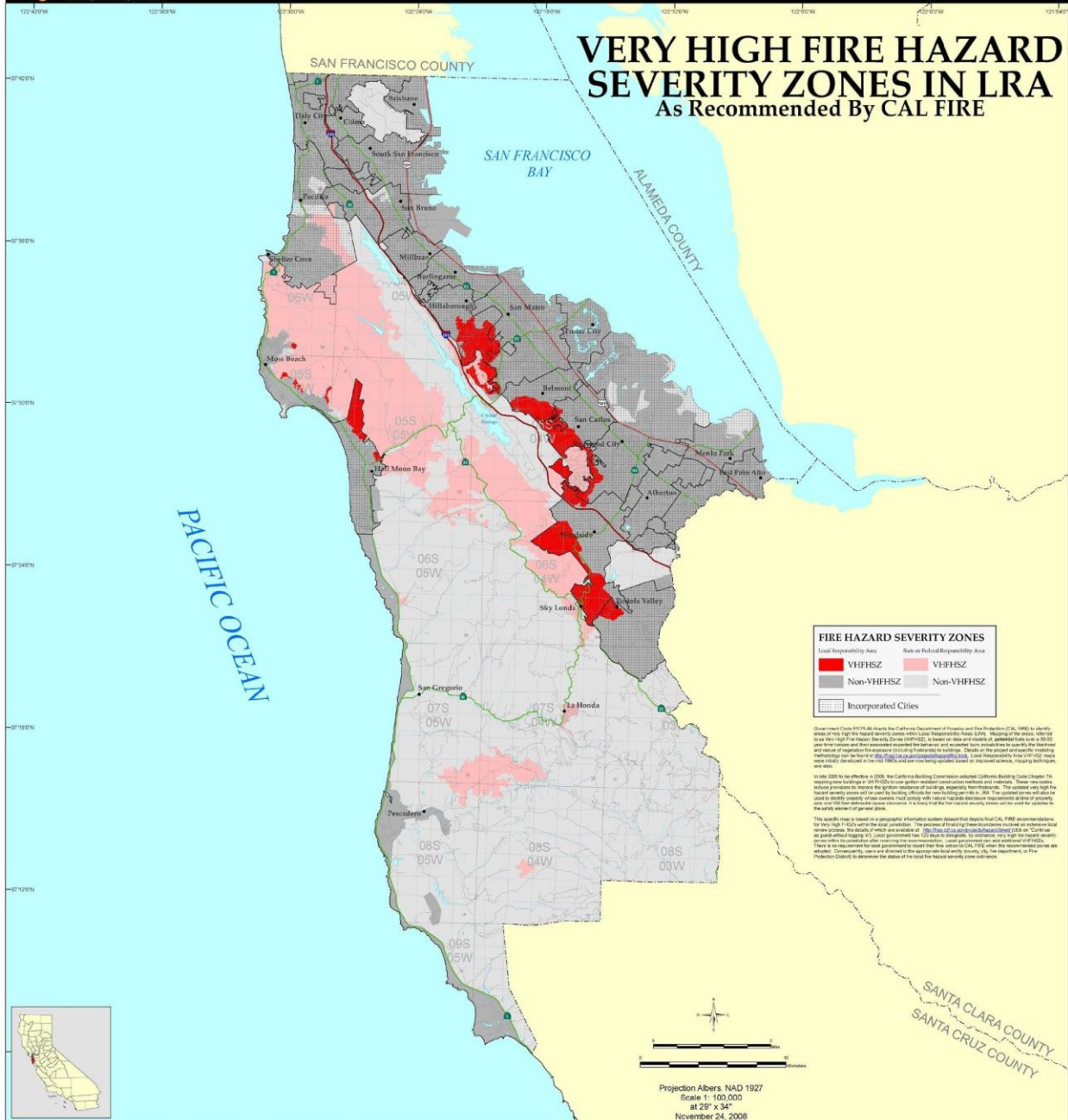
- Pierre-Louis, Kendra and Jeremy White. “Americans Are Moving Closer to Nature, and to Fire Danger.” *The New York Times*. November 15, 2018. https://www.nytimes.com/2018/11/15/climate/california-fires-wildland-urban-interface.html?emc=edit_ca_20181116&nl=california-today&nid=7640568220181116&te=1
- Pierre-Louis, Kendra and Jeremy White. “Americans Are Moving Closer to Nature, and to Fire Danger.” *The New York Times*. November 15, 2018. https://www.nytimes.com/2018/11/15/climate/california-fires-wildland-urban-interface.html?emc=edit_ca_20181116&nl=california-today&nid=7640568220181116&te=1
- Radeloffa, Volker C., David P. Helmers, Anu Kramer, Miranda H. Mockrin, Patricia M. Alexandre, Avi Bar-Massada, Van Butsic, Todd J. Hawbaker, Sebastián Martinuzzi, Alexandra D. Syphard, and Susan I. Stewart. “Rapid growth of the US wildland-urban interface raises wildfire risk.” *Proceedings of the National Academy of Sciences*, 115(13): 3314-3319. <http://www.pnas.org/lookup/suppl/doi:10.1073/pnas.1718850115/-/DCSupplemental>
- Romero, Simon, Tim Arango, and Thomas Fuller. “A Frantic Call, a Neighbor’s Knock, but Few Official Alerts as Wildfire Closed In,” *New York Times*, November 21, 2018.
- St. John, Paige, Joseph Serna, and Rong-Gong Lin III. “Here’s how Paradise ignored warnings and became a deathtrap.” *Los Angeles Times*, December 30, 2018. <https://www.latimes.com/local/california/la-me-camp-fire-deathtrap-20181230-story.html>
- San Mateo County. *Emergency Operations Plan: Basic Plan*. San Mateo County Sheriff’s Department, Homeland Security Division, Office of Emergency Services, May 22, 2015.
- San Mateo County. *Hazard Mitigation Plan*, 2010. <https://hsd.smcsheriff.com/sites/default/files/downloadables/SanMateoCo-Annex-2011%20Hazard%20Mitigation%20Plan.pdf>
- San Mateo County. *Hazard Vulnerability Assessment: Appendix to the Emergency Operations Plan*. San Mateo County Sheriff’s Department. Homeland Security Division, Office of Emergency Services. January 2, 2015. <http://hsd.smcsheriff.com/emergency-plans>
- San Mateo County Sheriff’s Department, Office of Emergency Planning. *Emergency Operations Plan: Basic Plan*, 5/22/15. <http://hsd.smcsheriff.com/emergency-plans>
- Schuessler, Anna, “Officials seek to expand emergency notifications,” *Daily Journal*, Nov. 13, 2018.
- 2004-2005 Sonoma County Civil Grand Jury, *A Disaster Waiting to Happen*. <http://sonoma.courts.ca.gov/sites/all/assets/pdfs/general-info/grand-jury/2004-2005/1Disaster.pdf>
- 2017-2018 Sonoma County Civil Grand Jury, *October Firestorm Emergency Response*. <http://sonoma.courts.ca.gov/sites/all/assets/pdfs/general-info/grand-jury/2017-2018/FinalReport.pdf>
- Sonoma County, Sonoma County Operational Area, *Alert and Warning Functional Exercise After Action Report / Improvement Plan*. September 10 and 12, 2018.
- Struzik, Edward. *Firestorm*. (Washington, D.C.: Island Press), 2017.

- Wettstein, Zachary S., Sumi Hoshiko, Jahan Fahimi, Robert J. Harrison, Wayne E. Cascio, Ana G. Rappold. “Cardiovascular and Cerebrovascular Emergency Department Visits Associated With Wildfire Smoke Exposure in California in 2015.” *Journal of The American Heart Association* 7:8 (2018)<https://www.ahajournals.org/doi/abs/10.1161/jaha.117.007492>



SAN MATEO COUNTY

VERY HIGH FIRE HAZARD SEVERITY ZONES IN LRA As Recommended By CAL FIRE



The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of data or maps.

Obtain FRAP maps, data, metadata and publications on the Internet at <http://frap.cdf.ca.gov>
For more information, contact CAL FIRE-FRAP, PO Box 944246, Sacramento, CA 94244-2460, (916) 327-3939.

Arnold Schwarzenegger, Governor,
State of California
Mike Chrisman, Secretary for Resources,
The Resources Agency
Ruben Grijalva, Director,
Department of Forestry and Fire Protection

APPENDIX B

IF YOU BECOME TRAPPED

In your home

- Stay inside until the fire passes.
- Close all windows.
- Keep all doors closed, but unlocked.
- Keep family together and remain calm.
- Remember, if it gets hot inside your house, it will be much hotter outside.

In your car

- Park away from vegetation.
- Roll up windows.
- Cover mouth with dry cloth to protect airway.
- Cover yourself with a blanket or jacket.
- Stay in the car until the fire passes.
- If the vehicle catches on fire, exit *only* after the wildfire has passed.


On foot

- Find an area away from vegetation.
- Lie face down.
- Cover mouth with dry cloth to protect airway.

After the Fire Passes

- Check the roof and exterior of your home, extinguish all sparks and embers.
- Check your attic for hidden embers.
- Check your yard for burning wood piles, trees, fence posts or other materials.

Returning to Your Home

- Emergency Managers will decide when it is safe to return.
- Information will be available through the media, at road blocks, and the evacuation center. 

SIGN UP FOR FREE EMERGENCY ALERTS
 AT: <http://www.smcalert.info/>

Keep a copy in your vehicle and in your home!

Palomar Park

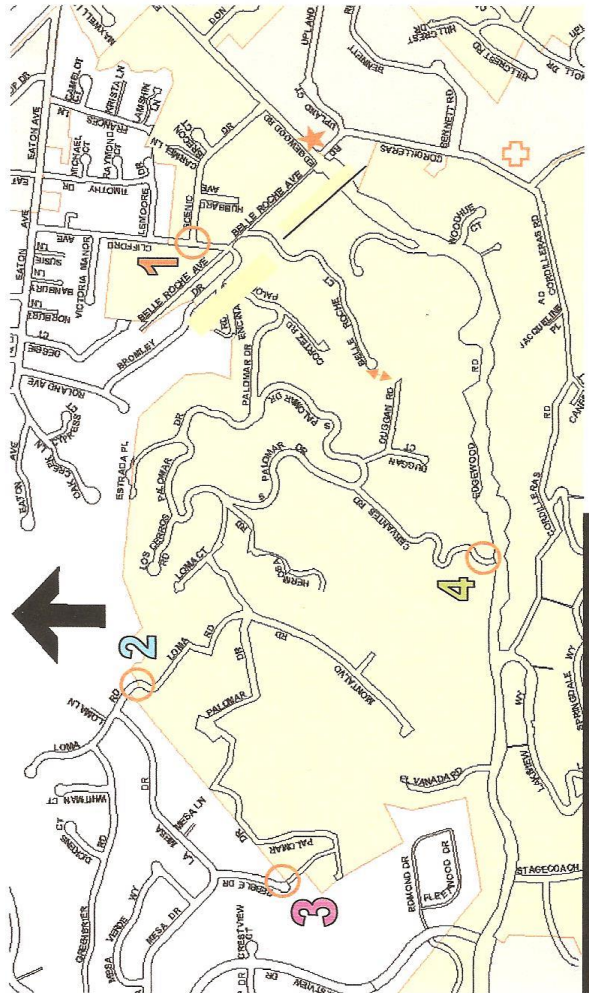
Emergency Evacuation Plan



4/2008



Palomar Park Evacuation Plan



EVACUATION PROCEDURES

In the event of an emergency...

- Citizens may be notified by emergency personnel if evacuation is necessary, or by a phone call from the San Mateo County Office of Emergency Services & Homeland Security (Reverse 911 System)
- Safely make your way out of the area using the pre-designated exit routes, or as directed by emergency services personnel.
- If evacuations are ordered, an evacuation center will be set up.

Proceed to:

St. Matthias Catholic Church
1685 Cordilleras Rd

- If evacuated, contact the Red Cross, or an emergency worker at the evacuation center to provide information about your status so that family or friends can be informed.
American Red Cross # 415-427-8000
- After an area has been evacuated, the area will remain closed until the threat has passed.
- **MOST IMPORTANTLY**, if you feel unsafe, don't wait. Follow the evacuation procedures and get out.
- A representative from the command post will keep you informed at the evacuation center.

Provided by:

Palomar Park Property Owners, Inc
CAL FIRE—San Mateo County Fire Department

EXIT ROUTES

1 2 3 4

1. Palomar Dr to Scenic Dr
2. Loma Road, through the gate, left on La Mesa to Crestview Dr (Foot Traffic ONLY)
3. Palomar Dr, through the gate on to Pebble Dr, left on La Mesa to Crestview Dr.
4. South Palomar Dr to Cervantes Rd to Edgewood Rd

Evacuation Center

Incident Command Post
(Emergency Personnel ONLY)

Fire Road (Between Duggan Rd & Belle Roche)

DRIVE WITH CAUTION!!!!

- Make sure your headlights are on!
- If conditions are too smoky, proceed slowly and stop if you can't see!
- Keep an eye and ear out for emergency vehicles! Give the right away!
- Roll up your windows, ensure your radio is off, and turn on your air conditioner!

Keep Calm, Think Clearly,
and ACT Decisively



County of San Mateo

APPROVED BY
BOARD OF SUPERVISORS

Inter-Departmental Correspondence

SEP 24 2019

CLERK OF BOARD
BY *[Signature]* DEPUTY

Department: COUNTY MANAGER

File #: 19-909

Board Meeting Date: 9/24/2019

Special Notice / Hearing: None
Vote Required: Majority

To: Honorable Board of Supervisors
From: Michael P. Callagy, County Manager
Subject: Board of Supervisors' Response to the 2018-2019 Civil Grand Jury Report, "Wildfire Risk and Response in San Mateo County"

RECOMMENDATION:

Approve the Board of Supervisors' response to the 2018-2019 Civil Grand Jury Report, "Wildfire Risk and Response in San Mateo County."

BACKGROUND:

On July 9, 2019, the 2018-2019 San Mateo County Civil Grand Jury issued a report titled "Wildfire Risk and Response in San Mateo County." The Board of Supervisors is required to submit comments on the findings and recommendations pertaining to the matters over which it has some decision-making authority within 90 days. The Board's response to the report is due to the Honorable Donald J. Ayooob no later than October 7, 2019.

DISCUSSION:

The Grand Jury made 13 findings and seven recommendations in its report. The Board responses follow each finding and the seven recommendations that the Grand Jury requested that the Board respond to within 90 days.

FINDINGS

Finding 1:

San Mateo County faces an increasing risk of loss of life and widespread property damage caused by wildfires.

Response:

Agree. With the changing climate, increasing temperatures, changing vegetation, and increased frequency of large damaging fires, San Mateo County faces an increased risk.

Finding 2:

The threats to life, property, and health from a wildfire extend beyond the Wildland Urban Interface in unincorporated San Mateo County and include areas east of Interstate 280.

Response:

Agree. Fire behavior throughout California has increased dramatically over the past several years, including burning into areas beyond the Wildland Urban Interface (WUI), such as Coffey Park in Santa Rosa. Wind driven fires are casting embers miles ahead of the main fire into areas outside of the WUI.

Finding 3:

CAL FIRE and individual fire agencies have established mutual aid arrangements that increase the resources available to combat a wildfire in San Mateo County.

Response:

Agree. San Mateo County local government agencies have a robust boundary-drop agreement resulting in faster response times. Additionally, mutual threat zone agreements between local fire agencies and CAL FIRE result in additional wildfire resources dispatched quicker throughout the most vulnerable areas of the county.

Finding 4:

CAL FIRE and individual fire agencies have taken actions to reduce fuel loads in San Mateo County.

Response:

Agree. Actions are being taken by CAL FIRE, San Mateo County Fire Department and a variety of other agencies to reduce the fuel load in the county. Large vegetation management projects are taking place in Quarry Park and Kings Mountain Road.

Finding 5:

Approximately 89% of county residents have not subscribed to the SMC Alert emergency notification system.

Response:

The Office of the Sheriff submitted a response to this Finding directly to the Civil Grand Jury.

Finding 6:

California Senate Bill 821 will enable the County to include residents in SMC Alert unless they choose to opt out of that notification system.

Response:

The Office of the Sheriff submitted a response to this Finding directly to the Civil Grand Jury.

Finding 7:

Emergency notification systems have vulnerabilities that may limit the communications received by residents during a wildfire.

Response:

The Office of the Sheriff submitted a response to this Finding directly to the Civil Grand Jury.

Finding 8:

The location and path of a wildfire influences the choice of safe evacuation routes and shelter

locations.

Response:

Agree. Every fire behaves differently depending on fuels, weather, and topography. This means that evacuation routes will differ depending on the location, weather, and type of vegetation burning.

Finding 9:

When a fire is nearby, fire officials in San Mateo County recommend leaving a threatened area *before* an evacuation is ordered.

Response:

Agree. The public should not wait for an official evacuation order to leave, especially if they can see the fire. Anyone who needs additional time to evacuate should also leave as soon as possible. When in doubt, public “self-evacuation” is highly encouraged.

Finding 10:

Most County and city emergency officials prefer to withhold notification of specific evacuation routes and shelters until an emergency is in progress.

Response:

The Office of the Sheriff submitted a response to this Finding directly to the Civil Grand Jury.

Finding 11:

CAL FIRE and the California OES recommend that residents include information on potential evacuation routes in a household emergency preparedness kit.

Response:

Agree. Every household should have a plan for evacuation routes, including more than one way out.

Finding 12:

County residents in only four communities (La Honda, Palomar Park, Portola Valley, and Woodside), containing less than two percent of the county population, have received information about alternative emergency evacuation routes and shelter sites in advance of an actual emergency.

Response:

Disagree. Additional formal evacuation plan mailers have been developed and sent to residents in the communities of Kings Mountain and El Granada.

Finding 13:

The County Tax Collector’s Office is able to include a one-page guide to emergency preparedness with County property tax bills periodically.

Response:

The Treasurer and Tax-Collector submitted a response to this Finding directly to the Civil Grand Jury.

RECOMMENDATIONS

Recommendation 1:

In order to expand the number of county residents receiving emergency notifications, the San Mateo County Office of Emergency Services should use the contact information of utility companies within six months of receiving guidance on implementing SB 821 from the California Office of Emergency Services.

Response:

The Office of the Sheriff submitted a response to this Recommendation directly to the Civil Grand Jury.

Recommendation 2:

The San Mateo County Office of Emergency Services should use utility contact information to distribute information on emergency response plans in advance of an emergency to the extent permitted under SB 821.

Response:

The Office of the Sheriff submitted a response to this Recommendation directly to the Civil Grand Jury.

Recommendation 3:

The San Mateo County Fire Department, working with individual fire agencies, should develop fire preparedness brochures that include maps of *alternative* evacuation routes from their respective communities (similar to the example in Appendix B) by June 30, 2020.

Response:

Agree. In 2018 two additional wildfire evacuation plan mailers were developed and sent to residents in the communities of Kings Mountain and El Granada. These plans showed evacuation routes as well as ways to prepare for wildfire. Additionally, San Mateo County Fire Department is currently leading a county-wide Standardized Evacuation Zone's project to ensure that all areas of the county can more quickly be evacuated.

Recommendation 4:

The San Mateo County Fire Department should produce a website containing the brochures recommended in R3 by June 30, 2020.

Response:

Agree. In June 2018 San Mateo County Fire Department's Six-Year Plan was adopted, which includes continued expansion of the San Mateo County Fire Department website in 2020. Evacuation plans will be included in this updated website.

Recommendation 5:

Periodically, beginning July 2020, the San Mateo County Office of Emergency Services should distribute emergency plans including links to maps with alternative evacuation routes with property tax bills.

Response:

The Office of the Sheriff and Treasurer and Tax-Collector submitted a response to this Recommendation directly to the Civil Grand Jury.

Recommendation 6:

The County Tax Collector should include a one-page insert on emergency response to a wildfire with property tax bills periodically, beginning July 2020.

Response:

The Treasurer and Tax-Collector submitted a response to this Recommendation directly to the Civil Grand Jury.

Recommendation 7:

The San Mateo County Office of Emergency Services should explore the possibility of providing advance information on alternative evacuation routes in a visual online format, such as the “crisis maps” feature in Google by June 30, 2020.

Response:

The Office of the Sheriff submitted a response to this Recommendation directly to the Civil Grand Jury.

FISCAL IMPACT:

There is no Net County Cost associated with accepting this report.



COUNTY OF SAN MATEO
OFFICE OF THE SHERIFF

CARLOS G. BOLANOS
SHERIFF

MARK C. ROBBINS
UNDERSHERIFF

400 COUNTY CENTER ◻ REDWOOD CITY ◻ CALIFORNIA 94063-1662 ◻ TELEPHONE (650) 599-1664 ◻ www.smcsheriff.com

ADDRESS ALL COMMUNICATIONS TO THE SHERIFF

September 5, 2019

Honorable Donald J. Ayob
Judge of the Superior Court
c/o Charlene Kresevich
Hall of Justice and Records
400 County Center, 2nd Floor
Redwood City, CA 94063-1655

RE: Civil Grand Jury Report: “Wildfire Risk and Response in San Mateo County”

Dear Judge Ayob,

The San Mateo County Sheriff’s Office would like to thank the Civil Grand Jury for their report titled “Wildfire Risk and Response in San Mateo County.” Furthermore, the Sheriff’s Office would like to acknowledge the obvious time and thoroughness dedicated to this report. As a follow-up to the Grand Jury’s findings and recommendations, the Sheriff’s Office is providing you with our response regarding wildfire risk and response in San Mateo County. This response is limited to the Findings and Recommendations as it pertains to the Office of Emergency Services.

FINDINGS

Finding # 5 – Approximately 89% of county residents have not subscribed to the SMCAAlert emergency notification system.

The respondent disagrees partially with the finding. SMCAAlert subscribership totals more than 100,000 accounts with a portion of these accounts belonging to families.

Finding # 6 – California Senate Bill 821 will enable the County to include residents in SMCAAlert unless they choose to opt out of that notification system.

The respondent disagrees partially with the finding because it is incomplete. SB 821 allows a County to enter into an agreement to access the contact information of resident account holders of certain entities for the purpose of enrolling county residents in a county-operated public emergency warning system, subject to an opt-out option and confidentiality/security provisions.

Finding # 7 – Emergency notification systems have vulnerabilities that may limit the communications received by residents during a wildfire.

The respondent agrees with the finding.

Finding # 10 – Most County and city emergency officials prefer to withhold notification of specific evacuation routes and shelters until an emergency is in progress.

The respondent partially disagrees with the finding. Specific evacuation routes should not be identified until the scope and nature of a specific emergency is understood.

RECOMMENDATIONS

Recommendation # 1 – In order to expand the number of county residents receiving emergency notifications, the San Mateo County Office of Emergency Services should use the contact information of utility companies within six months of receiving guidance on implementing SB 821 from the California Office of Emergency Services.

The recommendation has not yet been implemented, but will be implemented in the future; a timeframe cannot be provided because it is dependent on factors outside of OES control. Implementation is dependent upon the receipt of guidance from the California Office of Emergency Services related to SB 821. Currently, SB 46 is still pending, which contains language relating to implementing the section.

Recommendation # 2 – The San Mateo County Office of Emergency Services should use utility contact information to distribute information on emergency response plans in advance of an emergency to the extent permitted under SB 821.

The recommendation will not be implemented because it is not allowed under the language of SB 821 as it is enacted. The intent and purpose of SB 821 is for the allowance of counties and utility companies to enter into an agreement for the sharing of customer data for the sole use of emergency notification. Section 8593.4 (b) specifically states, “A county, or city and county, may not use the information gathered for any purpose other than for emergency notification.” Emergency plans are intended for use in the event of an emergency and should be evaluated and adjusted according to the threats at the time of the emergency.

Recommendation #5 – Periodically, beginning July 2020, the San Mateo County Office of Emergency Services should distribute emergency plans including links to maps with alternative evacuation routes with property tax bills.

The recommendation will not be implemented because it is not warranted. Emergency plans are developed for an agency’s operational response to an incident and provide little to no value to residents regarding wildfire risk or any other risk as well as what residents should do in the event of a disaster. That indicated, OES is working with fire agencies throughout the County that are leading a County-wide fire evacuation project. This project would be a more appropriate mechanism to evaluate evacuation route development and distribution. Due to the erratic and unpredictable behavior of weather and fire, these evacuation routes will still need to be evaluated for safety before being made public during an emergency.

Recommendation #7 – The San Mateo County Office of Emergency Services should explore the possibility of providing advance information on alternative evacuation routes in a visual online format, such as the “crisis maps” feature in Google by June 30, 2020.

The recommendation will not be implemented because it is not warranted. Fire behavior and weather will dictate which evacuation routes will need to be taken in order for residents to avoid going into areas of greater danger. Providing a map of possible evacuation routes in advance would only confuse the public on where to go to avoid fires (i.e., a mapped evacuation route may be where the fire is located or provide an unsafe route impacted by the fire). Distributing map-based information generated at the time of the emergency, ensures the information provided will be specific to that emergency and will not contain ambiguous routes that may lead individuals into greater danger. Additionally, OES continues to work with fire agencies throughout the County on a county-wide fire evacuation project.

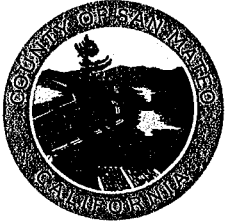
The Sheriff's Office appreciates the efforts of the Civil Grand Jury and has cooperated fully with their requests.

Sincerely,



Carlos G. Bolanos
Sheriff

Cc: Board of Supervisors
County Manager



Sandie Arnott

TREASURER - TAX COLLECTOR

Anthony J. Clifford
ASSISTANT TREASURER

Robin N. Elliott
ASSISTANT TAX COLLECTOR

September 27, 2019

Honorable Donald J. Ayoob
Jude of the Superior Court
C/O Charlene Kresevich
Hall of Justice
400 County Center, 2nd Floor
Redwood City, CA 94063-1655

Dear Judge Ayoob:

My response to the recommendations presented by the Civil Grand Jury follow:

R5. Periodically, beginning July 2020, the San Mateo County Office of Emergency Services should distribute emergency plans including links to maps with alternative evacuation routes with property tax bills.

The respondent agrees with the Finding.

The recommendation has not yet been implemented but can be implemented in the future with a timeframe for implementation.

This request can be accommodated, periodically, but information is limited to one page to avoid a spike in the cost of postage. Information must be received by the Tax Collector no later than July 15th of any given year.

R6. The County Tax Collector should include a one-page insert on emergency response to a wildfire with property tax bills periodically, beginning July 2020.

The respondent agrees with the finding.

This recommendation has not yet been implemented but can be implemented in the future with a timeframe for implementation.

The Tax Collector is willing to accommodate this request, periodically.

555 County Center, 1st Floor, Redwood City, CA 94063

Treasurer
(650) 363-4580 ♦ Fax: (650) 363-4944
treasurer.smcgov.org

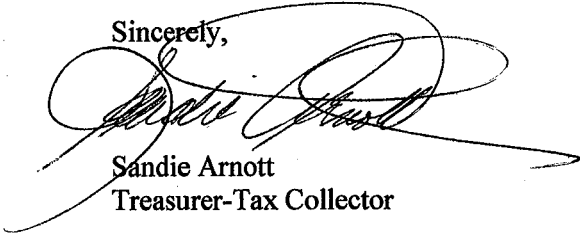
Tax Collector
(866) 220-0308 ♦ Fax: (650) 599-1511
tax.smcgov.org

F13. The County Tax Collector's office is able to include a one-page guide to emergency preparedness with County property tax bills periodically.

The respondent agrees with the finding.

This recommendation has not yet been implemented but can be implemented in the future with a timeframe for implementation.

Sincerely,

A handwritten signature in black ink, appearing to read "Sandie Arnott", is written over the typed name and title. The signature is fluid and cursive, with a large loop at the end.

Sandie Arnott
Treasurer-Tax Collector

cc: Honorable Board of Supervisors