



RESPONSE TO GRAND JURY REPORT FINDINGS AND RECOMMENDATIONS

REPORT TITLE: "Wildfire Preparedness: A New Approach"

REPORT DATE: April 18, 2019

RESPONSE BY: County of Marin Board of Supervisors

GRAND JURY FINDINGS

- We agree with the finding(s) numbered: **F1-F3, F5, F7-9, F14, and F18-19**
- We disagree wholly or partially with the finding(s) numbered: **F4, F6, F10-F13, F15-17, F20-22**

GRAND JURY RECOMMENDATIONS

- Recommendation(s) numbered **R5-R6 and R12-R13** have been implemented.
- Recommendation(s) numbered **R1-R4, R7-R11, R15** requires further analysis.

Date: _____ Signed: _____
President, Board of Supervisors



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RESPONSE TO GRAND JURY FINDINGS

F1. Existing vegetation management codes are both inconsistent and inconsistently enforced.

Response: **Agree.**

Fire agency policies differ, as do inspection and enforcement procedures.

F2. There are not enough trained vegetation inspectors or fuel reduction crews.

Response: **Agree.**

Although fire agencies are doing their best to reduce vegetation around existing homes, additional resources and dedicated staff are necessary to enhance existing efforts.

F3. Current vegetation enforcement procedures are slow, difficult and expensive.

Response: **Agree.**

Although each municipality has its own code enforcement procedures, a consistent countywide approach would allow for a more efficient and effective enforcement effort.

F4. Government agencies and safety authorities cannot currently manage vegetation on public lands.

Response: **Partially Disagree.**

While municipal governments do not have authority beyond their own jurisdiction, a coordinated countywide effort could help bring focus and consistency, as well as potentially additional resources, to enhance existing efforts on public lands.

F5. All property owners are responsible for vegetation management on their property, yet they are not sufficiently educated about vegetation management and many do not have the physical and financial resources to create defensible space.

Response: **Agree.**

Although education has been provided through individual fire agencies and FIRESafe Marin, we agree that education efforts need to be understood by broader sections of the community. Grant programs should be considered for those that may not have the physical or financial means to complete necessary work.

F6. Wildfire preparedness education is inconsistent and fails to reach most citizens, especially parents of young children.

Response: **Partially Disagree.**



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Although education is consistent countywide among the fire agencies and FIRESafe Marin, we agree the demographics of our hosted meetings/forums and exercises generally lack a younger demographic - especially parents of young children.

F7. The most effective method of education is person to person in neighborhoods.

Response: **Agree.**

Defensible space home evaluations with a trained professional are the preferred and best method for educating residents.

F8. Although Marin has 30 plus Firewise neighborhoods, the most in California, they only cover a small percentage of population and land.

Response: **Agree.**

We agree that Firewise Communities are a great mechanism for bringing communities and neighborhoods together. They provide an organized approach to reducing hazards and risks.

F9. Sufficient public funds have not been provided to sustain comprehensive wildfire preparedness education.

Response: **Agree.**

Generally, fire agencies are funded for response and mitigation of emergency incidents. Development into the Wildland Urban Interface and climate change, with attendant major fires in recent years, are requiring resources greater than those available by local municipalities and fire agencies.

F10. Educating the public requires a different set of skills than firefighters usually have.

Response: **Partially Disagree.**

Firefighters have experience that adds value to educating the public; however, they also have other, often more pressing responsibilities. Dedicated public education staff and defensible space home evaluators can spend more quality time on task than Firefighters.

F11. Any hesitation to use the WEA system can be deadly even if its alerts might reach people outside of its intended target zone.

Response: **Partially Disagree.**

The WEA system is not geographically specific and can bleed over to areas where evacuations are not necessary, adding unnecessary traffic to already congested roadways and impeding egress of those most affected. We agree it is a useful tool, but it must be well-coordinated between the incident commander and Sheriff's Office of Emergency Services.

F12. Alert Marin sends the most accurately targeted warnings to endangered populations, but it reaches too few residents because it is not well publicized. Both Alert Marin and Nixle require opt-in registration, a serious design flaw.



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Response: **Partially Disagree.**

Nixle and Alert Marin are two very different systems. Nixle, by design, is an "opt-in" solution providing general information to the public. Alert Marin is an emergency notification system. Nixle and Alert Marin information is publicized at almost every community event hosted by Fire Departments and Sheriff-OES, with information also available on agency websites.

Listed and unlisted/blocked Marin County landline and VoIP (Voice over Internet protocol) phone numbers are already included in our emergency notification system as "Opt-out". Cell phone numbers are not included and do require registration in our Self-Registration Portal. We agree that more of our residents need to "opt-in" to Alert Marin with their cellular information for enhanced accessibility. Additionally, we support changes in State law mandating cellular information be accessible with an "opt-out" provision like landlines and VoIP data. We are also pursuing newly available authority to cooperate with utility companies to obtain customer data for these purposes.

We will work with legislators to support bills like SB 46 (Hueso; 2019) which would allow local governments to enter into agreements to access resident cell phone contact information for enrolling county residents in a county-operated public emergency warning system.

F13. Sirens could be a useful and reliable warning system if their numbers and locations were increased to broaden their reach and if they were enhanced with a customized message through LRAD.

Response: **Partially Disagree.**

Long Range Acoustical Device (LRAD) is the name brand of one type of acoustical notification system. This system may have limited reach and limited ability to be heard inside a building. Local testing has provided mixed results based on topography and other outdoor existing noise. This type of system will not be effective in some areas of the County.

F14. In the WUI and in many town centers, infrastructure and roads are inadequate for mass evacuations.

Response: **Agree.**

Mass evacuation was not included in their original design purpose.

F15. Evacuation routes are dangerously overgrown with vegetation and many evacuation routes are too narrow to allow safe passage in an emergency.

Response: **Partially Disagree.**

Marin County has roads that are not overgrown, such as Sir Francis Drake Boulevard through Greenbrae, but also many narrow roads (sometimes private) with limited access and overgrown vegetation, often in sloped and difficult terrain. Much of the vegetation encroachment into the road right of way is the responsibility of adjacent homeowners. Public works agencies work with fire agencies in identifying and working in the most critical areas.



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F16. Emergency planners often do not publicize evacuation routes due to their mistrust of the public.

Response: **Disagree.**

In 2009 the Marin County Fire Agencies developed mutual threat zone maps, pre-identifying primary and secondary evacuation routes as well as evacuation zones. This information is available for first responders to access in conventional paper maps or online. It has also been made available to mutual aid responders outside of Marin County. Fire agencies are in the process of making these maps publicly available.

We do caution residents to take personal responsibility and identify and regularly travel different routes away from their home. Wildland fires can be very dynamic and depending on wind and topography can change direction with little to no warning.

F17. Town councils, planners, and public works officials have not addressed traffic choke points and, in some instances, they have created obstacles to traffic flow by the installation of concrete medians, bumpouts, curbs, speed bumps, and lane reductions.

Response: **Partially Disagree.**

Although we agree more needs to be done, we disagree that public officials have not made improvements to improve traffic flow.

F18. No studies have been performed to determine how long it would take to evacuate entire communities via existing evacuation corridors.

Response: **Agree.**

The fire chiefs are exploring opportunities with technology companies and higher educational institutions studying this type of work. Large scale evacuation planning needs additional resources for further study and development within Marin.

F19. The implementation of traffic-light sequencing and coordination to allow mass egress, and the conversion of two-way roads into one-way evacuation routes to ease traffic congestion, are dangerously delayed and years away from being implemented.

Response: **Agree.**

Large scale evacuation planning requires identification of appropriate corridors that would benefit most from contra-flow and traffic-light sequencing; the use of experts in this field should be engaged. Coordination with public works agencies, including Caltrans, and adequate funding would be necessary.

Strategies for how to implement measures during a no-notice emergency event would need to be developed, including flexibility to respond to the unique characteristics of each event and the ability to implement measures with limited time, personnel and equipment. Coordination with public works agencies and Caltrans would be necessary, and traffic modeling to test best routes and tactics would be needed to help quantify the benefits of different strategies and to support informed decision making.



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F20. Public transit is a neglected asset of emergency response preparedness: all operators except one transit agency are left out of the command structure and none is integrated into the emergency radio communication system MERA.

Response: **Disagree.**

Marin Transit is an original MERA Member Agency. Each of its Marin Access paratransit vehicles is equipped with a MERA radio and a mobile data terminal. Drivers primarily communicate with dispatchers using the mobile data terminal. The MERA radios are a backup during regular operations and support emergency communications with the 24 other MERA Member Agency First Responders.

If both landline and cell phone coverage are unavailable, Marin Transit has installed and programmed MERA radios for each of its contractors. This enables first responders to communicate with Marin Transit dispatchers. When needed, Marin Transit uses MERA to communicate with each contractor or uses a Marin Transit shared channel.

The Marin County Emergency Operations Center (EOC) has a formal organization and lines of authority based on universal national protocols for a coordinated government response to disasters and/or major emergencies, with a Transportation Unit in the Logistics Section.

As part of the incident command structure, EOC operations and medical staff coordinate with the Logistics Section Transportation Unit to clarify resource requests and provide instruction for staging of vehicles. The Transportation Unit communicates EOC resource requests to Golden Gate Transit or Marin Transit's operations contractors via telephone. On arrival at the staging area, drivers are instructed to respond directly to the incident commander. Marin Transit staff participate in EOC exercises and workshops and include operations and safety managers from its four contractors.

EOC Transportation Unit personnel are trained on all emergency communication methods and policies. They maintain contact procedures with Marin Transit and Golden Gate Transit operations staff and contractors. The Transportation Unit consists of three individuals. Currently, these include Marin Transit's Director of Policy and Legislative Programs and Senior Operations Analyst and the Safety and Training Manager for Whistlestop. Golden Gate Transit has its own emergency operations center and responds directly to the Marin County EOC requests for resources. When the EOC is fully activated, the three Transportation Unit staff report to the EOC for rotating 12-hour shifts.

Marin Transit requires its operations contractors to respond to emergency situations within Marin County with contractor personnel and Marin Transit-owned vehicles to the extent feasible. Contractors are also required to train their employees in emergency response protocols and to provide training for their safety and operations managers. Marin Transit contractors are required to develop, implement, and maintain an Emergency Preparedness Plan.

F21. A bureaucratic culture of complacency and inertia exists in Marin. Government often fails to act quickly to repair known gaps in emergency preparedness, to think flexibly, and to prioritize safety in its planning and policies.

Response: **Disagree.**



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We agree that more needs to be done to address this critical public safety issue in the face of what now is commonly referred to as the "new-normal." Accelerating climate change has led to larger, costlier, and more frequent wildfires in the state than ever before, burning almost year-round. Because of this, all fire agencies, the County, and its cities and towns are working together to explore the creation a countywide Wildfire Prevention program.

F22. No countywide comprehensive, coordinated policies have been made and no funds have been allocated to prepare for wildfires.

Response: **Disagree.**

There are several coordinated documents, policies or procedures within Marin County including: Mutual Threat Zone Plan, Community Wildfire Protection Plan, and the 2017 North Bay "Lessons Learned" report.



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RESPONSE TO GRAND JURY RECOMMENDATIONS

The Marin County Civil Grand Jury recommends the following:

R1. Create a comprehensive, countywide vegetation management plan that includes vegetation along evacuation routes, a campaign to mobilize public participation, and low-income subsidies.

This recommendation requires further analysis.

The Marin cities, towns, fire agencies and the County are addressing this recommendation with a working group to explore the creation of a countywide wildfire prevention program governed by a countywide Joints Power Agency. We agree that more needs to be done to address this critical public safety issue in the face of what now is commonly referred to as the "new-normal." Accelerating climate change has led to larger, costlier, and more frequent wildfires in the state than ever before, burning almost year-round. Because of this, all fire agencies, the County, and its cities and towns are working together to explore the creation a countywide Wildfire Prevention program.

The program scope for an ongoing, locally-controlled, Countywide Wildfire Prevention program would include the following:

- Fire fuel reduction and vegetation management
- Defensible-space home evaluations and education
- Evacuation planning and neighborhood preparedness
- Alert and warning enhancements
- Pursuit of grant funds for countywide efforts, as well as grant funding for seniors, the financially disadvantaged and those with access and functional needs.

This program would require new ongoing funding. We are currently exploring a potential countywide parcel tax measure in March 2020.

R2. Hire at least 30 new civilian vegetation inspectors and at least eight fire/fuels crews focused on fuel reduction in the high risk areas of the county, including federal, state and local public lands.

This recommendation requires further analysis.

As stated in our response to Recommendation No. 1, a countywide wildfire prevention initiative would include expanded defensible-space home inspections and education. A working group of fire chiefs and city/town managers are exploring options to ensure the most appropriate and cost-effective solutions are considered to improve defensible space countywide. This enhanced program would require new, ongoing resources. The staffing of this effort would be subject to policy decisions of a countywide JPA and/or the governing board of responsible fire agencies.

R3. Develop and implement a fast, streamlined procedure to enforce vegetation citations.

This recommendation requires further analysis.



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Fire prevention officers throughout the county are working on a countywide, streamlined approach, updating codes and processes. It is the intention of the group to implement some items as part of regular code adoption cycle this fall. Larger scale collaboration and a more streamlined approach will be addressed as part of the countywide wildfire prevention program. Our intention is to educate homeowners for cooperative compliance.

R4. Adopt and deliver a comprehensive education program focused on action for all residents of Marin on a regular schedule by a team of expert trainers.

This recommendation requires further analysis.

A countywide wildfire prevention program would include a comprehensive education program for all residents. Although agencies have made efforts to educate the public, without additional resources to enhance existing efforts, we believe these efforts will continue to be insufficient and not consistent throughout the County.

R5. Promote the creation of Firewise Communities in every neighborhood by all local jurisdictions.

This recommendation has already been implemented.

As the Grand Jury report points out, Marin currently has over 30 Firewise neighborhoods. With the creation of a countywide wildfire prevention program, our current efforts can be substantially enhanced and expanded throughout the County.

R6. Employ individuals with skills in public speaking, teaching, curriculum design, graphics, web design, advertising, community organization, community relations, and diplomacy to educate the public.

This recommendation has already been implemented.

We currently have very articulate fire professionals and FIRESafe Marin educating the public. However, we recognize more needs to be done and this work may not need to be done by our firefighters, who often have competing response priorities.

R7. Collect Marin residents' information and add it to Alert Marin and Nixle databases to make them opt-out systems.

This recommendation requires further analysis; portions have been implemented but other portions require further analysis.

Any recommendation to add mobile numbers and emails would require changes in State law. At this time, the only way to obtain residents' mobile numbers and emails is to encourage self-registration; telecommunications companies will not share this data. We will work with legislators to support bills like SB 46 (Hueso; 2019), which would allow local governments to enter into agreements to access resident cell phone contact information for enrolling county residents in a county-operated public emergency warning system.



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Per the Marin County Sheriff, Alert Marin has been populated with all available landline and voice over internet (VOIP) data for residents, businesses and governments in Marin County. This data provides names, addresses and geo-location for each data point. Residents and businesses have the right to opt-out by contacting the Marin County Sheriff's Office of Emergency Services (OES). Nixle works very differently, wherein residents can only subscribe (opt-in) by texting their zip code to 888777 or by providing information on the Nixle website.

We are also pursuing newly available authority to cooperate with utility companies to obtain customer data for these purposes, but state legislation would be needed to obtain cell phone contact information.

R8. Expand the use of sirens with LRADs.

This recommendation requires further analysis.

Sirens and LRAD's have limited reach and ability to be heard inside a building. Local testing has provided mixed results based on topography and other competing outdoor existing noise. This type of system does have valuable application in some areas within the County. Some communities are moving forward replacing existing sirens with LRAD's and or expanding the use of sirens or LRAD's where appropriate.

R9. Research, develop, and publish plans for the mass movement of populations along designated evacuation routes.

This recommendation requires further analysis.

Large scale evacuation planning requires identification of appropriate corridors that would benefit most from contra-flow and traffic-light sequencing; the use of experts in this field should be engaged. Coordination with public works agencies, including Caltrans, and adequate funding would be necessary.

Strategies for how to implement measures during a no-notice emergency event would need to be developed, including flexibility to respond to the unique characteristics of each event and the ability to implement measures with limited time, personnel and equipment. Coordination with public works agencies and Caltrans would be necessary, and traffic modeling to test best routes and tactics would be needed to help quantify the benefits of different strategies and to support informed decision making.

R10. Give the highest priority to mitigating known choke points and to maximizing the capacity of existing evacuation routes.

This recommendation requires further analysis.

Similar to our response to R9, large scale evacuation planning needs to identify "choke points". Large scale evacuation planning requires identification of appropriate corridors that would benefit most from contra-flow and traffic-light sequencing; the use of experts in this field should



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be engaged. Coordination with public works agencies, including Caltrans, and adequate funding would be necessary.

Strategies for how to implement measures during a no-notice emergency event would need to be developed, including flexibility to respond to the unique characteristics of each event and the ability to implement measures with limited time, personnel and equipment.

R11. Incorporate and prioritize plans for mass evacuations in all pending and future traffic/road projects along major escape routes.

This recommendation requires further analysis.

Most road projects are focused on maintaining the existing pavement through resurfacing. Some low-cost elements may be able to be incorporated into roadway projects. Most items would likely require identifying additional resources.

R12. Educate, prepare, and drill for evacuations in all communities.

This recommendation has been implemented.

Although all Marin Fire agencies has done this work to some extent, a countywide Wildfire Prevention program would substantially expand efforts to educate, prepare and drill for evacuations through Marin.

R13. Fully integrate public transit into the MERA communications system without further delay.

This recommendation has been implemented.

Marin Transit is an original MERA Member Agency. Each of Marin Transit's Marin Access paratransit vehicles is equipped with MERA radios and mobile data terminals. The MERA radios are a backup during regular operations and support emergency communications with the 24 other MERA Member Agency First Responders.

Marin Transit has installed and programmed MERA radios for each of its four contractors. This enables Marin Emergency responders to communicate with Marin Transit's dispatchers. If landline and cell phone are not available, Marin Transit uses MERA to communicate with each contractor or a Marin Transit shared channel to communicate with all of them.

When MERA's Next Generation Radio Communications System is completed, Marin Transit, the other MERA Member Agencies and the public will benefit from the improved coverage, system capacity and resiliency, response times and interoperability it will provide.

R15. Establish in the form of a Joint Powers Authority an umbrella organization for wildfire planning and preparedness (vegetation management, public education, alerts, and evacuation), funded by a ¼ cent sales tax.

This recommendation requires further analysis.



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The Marin cities, towns, fire agencies and County are addressing this recommendation with a working group to explore the creation of a countywide Wildfire Prevention program governed by a countywide Joint Power Agency. The program scope for ongoing, locally-controlled, Countywide Wildfire Prevention program would include the following:

- Fire fuel reduction and vegetation management
- Defensible-space home evaluations and education
- Evacuation planning and neighborhood preparedness
- Alert and warning enhancements
- Pursuit of grant funds for countywide efforts, as well as grant funding for Seniors, financially disadvantaged and those with access and functional needs.

This program would require new, ongoing funding. We are currently exploring a potential countywide parcel tax measure in March 2020. Based on our feedback from Marin fire-responsible agencies, we believe that a parcel tax is the appropriate funding mechanism.