

**Marin Wildfire Prevention Authority:
A Case Study in Fire Resilient Governance**

Acknowledgements

The following report aims to synthesize a year of research on wildfire resilience efforts in and beyond Marin County. Over the course of this project, many individuals lent support, guidance, and important insights that formed the basis of these observations. Beginning early in 2021, Maxwell Klotz and I began researching under the direction of Iris Hui and Bruce Cain. Summer 2021, Gus Wachbrit joined the project and provided crucial support. Throughout this period, and afterwards, Rebecca Suggs, Bruce Goines, and Mark Brown were tremendously generous in sharing their time and expertise. Bill Tyler, Dan Schwarz, and Lucy Dilworth likewise shared valuable reflections on their experiences. Many thanks to everyone who made this report possible.

Miri Powell, April 2022

Contents

Report Summary	3
Establishment Flowchart	5
Background: Wildfire Preparedness in Marin County	6
Measure C: Passing the Ballot, Securing Funding	14
MWPA: Structure and Operations	18
Learning from MWPA: Fire Resilient Governance	28
Appendix A - MWPA JPA	32
Appendix B - MWPA Operational Boundary Map	43
Appendix C - MWPA Bylaws	44
Appendix D - MWPA Workplan Excerpts	54
Appendix E - ESP Partnership Vision Meeting Report	60
Appendix F - Ecologically Sound Practices for Vegetation Management Draft	65
Appendix G - Lessons Learned Report	86
Appendix H - 2019 Civil Grand Jury Report Excerpts	110

Report Summary

In recent years, intensifying wildfires have prompted renewed calls to enhance fire resiliency across many settings. The Marin County Wildfire Prevention Authority (MWPA) promotes resiliency by coordinating fire preparedness projects across seventeen distinct agencies. MWPA is a useful case study for understanding the importance of effective governance structures in wildfire preparedness work in particular, as well as in climate resiliency more broadly. Since its establishment in 2020, four practices have been crucial to the authority's success: allowing for flexibility within its structure, relying on the strengths of its member agencies, working closely with citizens and environmental groups to develop and apply a set of ecologically sound practices for all wildfire preparedness projects, and encouraging ongoing community involvement. These practices have allowed MWPA to build out gradually while implementing urgent fire preparedness projects and engaging with varied stakeholders and constituencies.

In the context of the continued wildfire risk, the MWPA's experience may yield important lessons for wildfire preparedness initiatives in other communities. The following report aims to offer an account of the MWPA's experience, as well as the context from which it emerged. Proceeding chronologically, this report is organized into three sections, which address wildfire preparedness initiatives in Marin since 1990, the campaign to establish and secure funding from MWPA, and the MWPA's structure and operations as they evolved in its first year since founding.

From these contexts, collaboration emerges as a key theme. While previous wildfire preparedness initiatives demonstrated the importance of cooperation across disparate jurisdictions, as well as among different kinds of agencies and organizations, the establishment of the MWPA itself offers numerous examples of successful collaboration among fire managers, city and county officials and elected leaders, as well varied interest groups and residents. Following the MWPA's operations since its founding further shows how the authority has been able to build collaboration into its structure. Examples of collaborative efforts within MWPA include the authority's committee structure—including its Citizen's Oversight Committee—and its Environmentally Sound Practices Partnership—a mechanism that facilitates collaboration between fire managers and the Marin environmentalist community, in particular. The strength of varied participants' commitment to collaboration formed the foundation upon which leaders of the effort to establish the MWPA were able to maintain flexibility and community engagement while developing a framework for the organization.

Foundations

Extended experience of cooperation between fire agencies

+

Cooperation across jurisdictions (established precedent for JPAs in Marin)

+

Public interest and involvement (Civil Grand Jury investigation, Citizens for Wildfire Preparedness)



First Steps

Building consensus between fire agencies (Lessons Learned Report established shared understanding of wildfire risk)

+

Cooperating with City Managers and other public officials with organizational expertise

+

Collaborating with invested residents (CWP*, Measure C campaign)
*Citizens for Wildfire Prevention



Pre-Campaign Build Out

Determining agency structure

+

Identifying funding base (deciding between parcel or sales tax)

+

Identifying critical agencies (i.e. which agencies would have to be included in the JPA for the agency to function)



Campaign

Negotiating between interest groups: building support from environmental groups, tax payer groups, and wildfire protection groups

+

Assuring consistency across the county: involved residents and fire managers promote the measure by showing up at meetings and contacting relevant officials in each district



Build Out

Establishing a vision for the agency:

- hiring executive officer
- adopting bylaws
- drafting additional positions for which to hire

+

Relying on member agencies and community partners to implement programs in the interim:

- FIREwise involvement in vegetation management
- larger member agencies extend resources and expertise to smaller ones



Moving Forward

Continuing to determine agency structure and staffing on an as-needed basis

+

Further articulating core principles, goals, objectives, metrics, and monitoring

+

Executing projects across the county

Background: Wildfire Preparedness in Marin County

The effort to establish the MWPA benefitted from decades of public concern over wildfires. The experience of cataclysmic wildfire increased concerns about fire risk and motivation to engage in wildfire preparedness. In the Bay Area, the experience of the 1991 Tunnel Fire prompted many to become more engaged in wildfire preparedness work. The 1991 Tunnel Fire in the Oakland-Berkeley Hills was one of the most devastating wildland fires in United States history. The fire spread quickly through residential neighborhoods in the East Bay, damaging thousands of properties and causing the deaths of 25 people. One of the initiatives taken up in the wake of the Tunnel Fire was FIRESafe Marin—one of the first fire safe councils in the United States. The history of FIRESafe Marin demonstrates the longstanding collaborative efforts and forms of community engagement that have been integral to the establishment of the MWPA.

Shortly after the Tunnel Fire, the Marin County Board of Supervisors issued a resolution to create a fire safety council. At the same time, Marin Municipal Water District was working towards forming a wildfire preparedness organization. In 1992, FIRESafe Marin arose from the convergence of these parallel efforts, as a formal partnership between fire districts, land managers, and local government.

Marin County Supervisor Hal Brown served as the first Chairman of the organization. FIRESafe Marin initially met at the Kentfield Fire District and later moved to Marin Conservation Corps' offices, before establishing itself at the Nexus volunteer

center in San Rafael. This varied trajectory indicates the diverse constituencies FIRESafe Marin has been able to engage in organizing around wildfire preparedness.

The organization's collaborations also include private utility companies and insurers. In addition to promoting collaborations between various actors and institutions who are concerned with wildfire, FIRESafe Marin also facilitates specific wildfire preparedness programs, ranging from vegetation management projects such as Chipper Days and green waste collection to fire safety education programs. Each of these initiatives promotes wildfire resiliency by mitigating fire risk and enhancing fire safety.

Another convergence of wildfire preparedness efforts occurred in 1995, as the Vision Fire on Inverness Ridge brought renewed attention to fire risk in Marin. Climactic conditions and accumulating fuel loads had created an environment of extreme wildfire risk at the outbreak of the Vision Fire. Because of the accumulation of fuel and other environmental conditions, the Vision Fire would ultimately burn across over 11,000 acres of the Point Reyes National Seashore and destroy 48 homes.

The Vision Fire left a deep impression on many Marin residents, which encouraged further organizing around wildfire resiliency and preparedness. Just as the 1991 Tunnel Fire had motivated many to become more involved in wildfire preparedness work, the Vision Fire would spark renewed efforts to promote fire resilience. In the wake of the Vision Fire, the Environmental Action Committee of West Marin (EAC) formed the Phoenix Team, which produced a report on wildfire recovery. The work of the Phoenix Team indicated broadening interest in wildfire preparedness. EAC's report, "After the Vision Fire: Restoration, Safety & Stewardship for the Inverness

Ridge Communities,” included detailed information on wildfire preparedness practices such as home hardening and vegetation management.¹ Many of the themes addressed in the EAC’s report have remained central to promoting wildfire preparedness and resiliency.

In the years after the Vision Fire, Marin residents would pursue varied means of expressing concerns about wildfire risk and interest in wildfire preparedness. In 2003, a Civil Grand Jury report reflected persistent attention to fire preparedness. The report, titled “Wildfires — Partners in Prevention,” emphasized the importance of collaboration between public and private initiatives in matters of wildfire safety.² Report authors identified local fire districts, nonprofits such as FIRESafe Marin, and private homeowners as key collaborators. Among the recommendations included in the report were increased enforcement of defensible space codes, careful use of controlled burns, as well as consistent meetings between representatives of fire districts, natural resource agencies, and FIRESafe Marin to coordinate projects across the county.

While the 2003 Civil Grand Jury Report responded to the devastating fire seasons of 2001 and 2002, another devastating fire season was already underway. The 2003 fire season was especially impactful for Marin’s fire service because Marin County lost a firefighter in San Diego’s Cedar Fire. The loss was felt widely throughout the community and reinforced the importance of wildfire preparedness for years to come.

The 2008 publication of another Civil Grand Jury report reiterated concerns over wildfire risk. The report, “MARIN ON FIRE! Not if, but when,” focused on the

¹ “After the Vision Fire: Restoration, Safety & Stewardship for the Inverness Ridge Communities.” *Environmental Action Committee of West Marin*. 1996.

² “Wildfires — Partners in Prevention.” Marin County Civil Grand Jury. 2003.

importance of vegetation management in particular. Members of the Grand Jury interviewed representatives from fire districts across Marin County to assess the state of countywide vegetation management. The report indicated that noncompliance with defensible space codes thwarted wildfire preparedness throughout Marin. Echoing the findings of the 2003 report, the 2007-08 Grand Jury insisted on the necessity of consistency and communication across county agencies. Recommendations, however, emphasized the regulatory authority of existing fire districts, encouraging fire jurisdictions to review and update vegetation management and defensible space codes.³

In 2013, a Marin County Civil Grand Jury convened once again to assess wildfire preparedness throughout the county. Their findings, published as “Marin on Fire Redux,” directly engaged with those of the 2008 report. Whereas the 2008 report highlighted wildfire risks at the scale of the individual home and noncompliance with defensible space codes, the 2013 report shifted attention towards Marin County’s open space and the fuel load on the Mt. Tamalpais Watershed. The 2013 report also connected wildfire risk to other environmental concerns, such as biodiversity loss due to invasive species, namely the French Broom.⁴

The 2013 report signaled not only environmental but also social and economic factors that increase wildfire risk, such as population growth and residential development within or near the Wildland-Urban Interface.⁵ While the report

³ “MARIN ON FIRE! Not if, but when.” Marin County Civil Grand Jury Report. 2008. p 16.

⁴ “Marin on Fire Redux.” Marin County Civil Grand Jury. 2013. p. 2.

⁵ Ibid.

acknowledged these broader trends, which impact wildfire risk, its primary focus was the threat presented by overgrown invasive species in the Mt. Tamalpais Watershed. As such, the recommendations included in the report were largely concerned with approving the use of herbicides to control Broom growth within the Watershed area. Insofar as its focus diverged from previous Grand Jury reports, the 2013 report demonstrates the varied considerations public agencies and concerned citizens must take into account while assessing wildfire risk and preparedness.

The concerns expressed in Grand Jury reports were shared by county agencies. Just as Marin residents participated in varied efforts to promote wildfire preparedness programs, Marin County fire districts, land managers, and public officials were developing plans for coordinating wildfire preparedness work. In 2016, Marin County Fire Department and FIRESafe Marin jointly published their Community Wildfire Protection Plan (CWPP). The plan synthesized findings from county and state officials, state and federal land management agencies, as well as community members to offer a comprehensive account of wildfire risk throughout Marin County.

Like previous Grand Jury reports, the 2016 plan emphasized the necessity of collaboration across county agencies. The 2016 CWPP noted the varied resources under threat of wildfire risk, including biodiversity and watersheds. To protect such resources, as well as homes and communities, the CWPP advised that varied stakeholders and communities become involved in wildfire preparedness work. As the authors explain: “A CWPP provides a mechanism for obtaining community input and

identifying high risk areas, possible fire hazards, and potential projects intended to mitigate areas of concern and fire hazard.”⁶

The process of publishing Marin’s CWPP successfully brought together numerous local, state, and federal agencies and community organizations. Organizers also held public meetings to allow Marin residents to convey their concerns, which were included in the 2016 plan. The publication of the CWPP demonstrates how longstanding collaborative efforts have been central to wildfire preparedness work in Marin county.

The 2017 fire season once again brought concerns over wildfire risk to the fore. The proximity of the devastating North Bay Fire Siege to Marin County signaled the potential for wildfire outbreak in Marin. As the authors of the 2018 Lessons Learned report observed, “the only thing separating Marin county from their neighbors to the north was simply an ignition source.”⁷ In the wake of the 2017 fire season, Marin county public officials and fire managers set out to learn from Sonoma county’s experience with the intention of ensuring Marin would be prepared in the event of extensive wildfire.

The Marin County Board of Supervisors established a subcommittee to research the North Bay Fires in November 2017. Supervisors Judy Arnold and Dennis Rodoni joined the subcommittee, alongside fire and land managers, representatives from local law enforcement, as well as elected officials from across Marin county. The subcommittee’s work began with interviews of Sonoma county officials to understand

⁶ Marin Community Wildfire Protection Plan. 2016. p 29.

⁷ “Lessons Learned: 2017 North Bay Fire Siege.” September 2018. p 3.

their experience of and reflections on the 2017 Fires. Next, subcommittee members held public forums to understand Marin residents' interests and preferences in wildfire preparedness. The final step of the subcommittee's work was to inventory existing wildfire preparedness programs and to identify inconsistencies between county agencies. The outcome of this work was the "Lessons Learned: 2017 North Bay Fire Siege" report, which was completed in September 2018. The effort to put together this document proved an essential organizing experience for leaders who would go on to establish the MWPA. **(See Appendix G)**

The subcommittee's interviews with Sonoma county and Santa Rosa city officials identified a number of important areas to improve wildfire preparedness. These areas were organized according to which kinds of agencies would be responsible for their improvement. Where land management agencies might take the lead on mapping and managing vegetation as well as educating residents about defensible space, law enforcement would be more engaged in emergency alerts and evacuations of vulnerable residents. Emergency managers would be responsible for the language used in alerts and for training alert operators and other emergency personnel. Fire agencies listed the greatest number of areas for improvement, among which included needs for additional staff, establishing an understanding that fire season is year-round, and forming closer working relationships with city, town, and county officials.

The subcommittee produced numerous recommendations for improving wildfire preparedness programs in Marin. The recommendations indicate the extent to which wildfire issues require the cooperation of diverse agencies and interest groups, including various county agencies as well as the public. In its concluding "Next Steps,"

the subcommittee’s “Lessons Learned” report offers several more precise prescriptions for improving wildfire preparedness measures in Marin. Many of the proposed recommendations paralleled initiatives taken up as part of an effort to expand county disaster preparedness in 2018. These developments further demonstrate the extent to which the convergence of parallel initiatives created the necessary conditions for establishing a JPA on wildfire preparedness.

In 2019 interest in wildfire preparedness would coalesce once again, as another Marin County Civil Grand Jury set out to understand the state of wildfire preparedness in Marin. The Grand Jury’s report conveyed the sense of urgency with which members viewed the threat of wildfire. An opening line read: “We are living in a powder keg.”⁸ Having surveyed the wildfire preparedness programs pursued across disparate county agencies, the members of the Grand Jury advocated for more consistency across the county and posited that the establishment of a single agency would best achieve this goal. “This report,” authors summarized, “argues for a change in civic culture and suggests a mechanism to address many of the inadequacies in wildfire preparedness. The Grand Jury recommends the creation of a countywide umbrella agency to fund, coordinate and lead pre-ignition and pre-suppression planning.”⁹ Given its emphasis on the necessity of a countywide agency, the 2019 Civil Grand Jury report was an important precursor to the establishment of the MWPA. **(See Appendix H)**

The report concluded with twenty two distinct findings as well as fifteen recommendations. While the findings summarized research on the state of vegetation

⁸ “Wildfire Preparedness: A New Approach.” Marin County Civil Grand Jury. 18 April 2019. p 2.

⁹ Ibid.

management, wildfire preparedness, and emergency response programs in Marin, the recommendations outlined how a countywide agency could take responsibility for these varied aspects of wildfire preparedness. The report was met with a generally positive response from the public agencies whose comments were required. Many agencies submitted nearly verbatim responses, evidencing the already existing networks of collaboration between agencies on matters of wildfire preparedness. Additionally, many of the report's responses referred to an existing working group on wildfire preparedness in Marin. This working group continued the efforts initially undertaken to produce the Lessons Learned report. The effort to establish the MWPA, then, benefitted not only from significant public interest—as expressed by the Grand Jury report—but also from collaboration and communication across county agencies. Communication between agencies prior to the publication of the 2019 report allowed for consistent responses across county agencies and would enable quick mobilization to establish the new countywide wildfire preparedness agency.

Measure C: Passing the Ballot, Securing Funding

A crucial step in forming the MWPA was passing Measure C, which allowed for a parcel tax that would provide the new agency with an independent basis of funding. Passing Measure C depended on a crucial community outreach work. After the 2019 Civil Grand Jury disbanded, several jurors formed Citizens for Wildfire Preparedness to continue to advocate for a county-wide wildfire preparedness agency. Efforts to engage local elected officials and residents in wildfire preparedness included attending

and speaking at town hall meetings as well as sending letters and making phone calls to local officials.

The efforts of Citizens for Wildfire Preparedness benefitted from fire managers' early support for Measure C. On October 31, 2019, the *Marin Independent Journal* published an op-ed coauthored by Bill Tyler and Jason Weber—both experienced fire chiefs from Marin who were part of the working group that produced the Lessons Learned report—to advocate in favor of passing the ballot measure. Tyler and Weber noted the widespread support for a countywide wildfire prevention agency, as expressed in the 2016 Community Wildfire Protection Plan, the 2018 Lessons Learned report, and the 2019 Civil Grand Jury Report. Tyler and Weber also pointed to public informational meetings, which had been taking place since July, to indicate opportunities for public input on the structure and priorities of the new agency. The fire chiefs ended their article by observing Marin's good fortune in avoiding catastrophic wildfire. To ensure that this good fortune might continue, Tyler and Weber argued, the community would need to support and secure funding for the countywide wildfire preparedness agency.

Through the Measure C campaign, local environmental groups also became involved in shaping what would become the MWPA. Leading up to the founding of the MWPA, numerous environmental groups and their representatives expressed support for Measure C. On 18 October 2019, Larry Minikes—the San Rafael area secretary for the Marin Conservation League, and a longtime member of several Marin environmental organizations—published an op-ed in the *Marin Independent Journal* to encourage Marin residents to support Measure C. In the article, Minikes identified the

impact of climate change on intensifying wildfires as well as the increasing necessity of wildland management.¹⁰ Minikes made varied appeals to encourage fellow Marin residents to support funding the new agency. In closing, Minikes indicated homeowners' interest in supporting wildfire preparedness as fire risk impacts home insurance rates. "The residential fire industry," Minikes explained, "considers community efforts in calculating rate increases and when issuing policy cancellations [...] Marin homeowners are already experiencing these cancellations. The only option for most is to turn to the very expensive, insurer-of-last-resort, state-sponsored plan." This final note would soothe concerns over the tax levied to fund the MWPA by setting this slight increase in cost of living in contrast to less predictable, or controllable, increases in insurance rates.

Support from environmental groups persisted throughout the campaign to pass Measure C. On February 27, 2020—just a few days before the March 3 election to pass Measure C—EAC also published a statement endorsing the measure to fund MWPA. As a means of prefacing their position on Measure C, EAC referred to their 1996 report on the Vision Fire to indicate their longstanding concern over the environmental impacts of wildfire. Evidencing their sustained commitment to engaging in wildfire preparedness efforts, EAC also emphasized the importance of collaboration between fire professionals and environmental groups. "Marin County Fire," the organization observed, "has worked over the last year with environmental organizations to better understand their concerns and seek a balanced approach for implementation by

¹⁰ Minikes, Larry. "Marin Voice: Wildfire Prevention Authority tax plan an important move for the county." *Marin Independent Journal*. 18 October 2019.

establishing the working group *Ecologically Sounds Practices Partnership*.”¹¹ The sustained collaboration between fire managers and interest groups like EAC helped ensure the successful establishment of the MWPA.

Successful collaboration, in some instances, required compromise. On 25 January 2020, Matthew Pera reported on the progress of the Measure C campaign for the *Marin Independent Journal*, noting some of the compromises that had been made to ensure the popularity of the measure. While the JPA was widely popular in most county jurisdictions, Pera described, two municipalities had declined to join the agreement: Tiburon and Belvedere. Tiburon and Belvedere would be the only county jurisdictions not participating in the MWPA.¹² Officials from each community offered varied reasons for their decision to remain separate from the new countywide agency. Tiburon fire chief Richard Pearce, for instance, indicated that MWPA’s projects were somewhat redundant with initiatives already taken up by the district. Craig Middleton, Belvedere City Manager, alternately expressed that the county wide Measure C closely paralleled another measure on Belvedere’s ballot, which provided for the extension of a fire tax within the town. It’s worth noting that Belvedere contracts Tiburon Fire District to perform its fire response and preparedness work, so while both jurisdictions stepped away from the MWPA this entailed the loss of only one fire district from the countywide JPA.

¹¹ “Why EAC is YES, Wildfire Preparedness & Measure C.” *West Marin Environmental Action Committee*. 27 February 2020.

¹² Matthew Pera. “Marin wildfire agency proponents in final push for tax.” *Marin Independent Journal*. 25 January 2020. Web. <https://www.marinij.com/2020/01/25/marin-wildfire-agency-proponents-in-final-push-for-tax/>

This instance illustrates one of the crucial decisions that involved community leaders had to make while planning the structure of the wildfire preparedness agency: which county agencies had to be included in the JPA? Given the diversity of county agencies—in terms of size, terrain, population, and other factors—it was important for fire managers and other planners to carefully consider and determine the agencies without which the new authority would not be able to function. It was particularly important to ensure that not only taxing authorities, but also fire protection authorities would be included. This exercise in determining ‘must-have’ agencies allowed officials to consolidate their efforts in areas that were most important to include in the JPA.

Ultimately, the majority of Marin county jurisdictions, would remain in the JPA. Still, several key concerns around the language of Measure C—and thus the funding of the new agency—remained. One area that required compromise was the levying of an additional tax to fund the MWPA. The fact that the 2019 Civil Grand Jury report recommended that a sales tax fund the new agency, whereas Measure C ultimately proposed a parcel tax, which was adopted to secure a source of revenue for MWPA, indicate sifting opinions. Several interest groups, including Citizens for Wildfire Preparedness—which had been formed by members of the 2019 Civil Grand Jury—and Marin’s Coalition of Sensible Taxpayers, favored a parcel tax with a ten-year sunset period. The final decision was driven by a poll of taxpayers who favored a parcel tax over sales tax increase. These variables indicate the effort to build consensus across the diverse coalitions that became involved in wildfire preparedness in Marin.

MWPA: Structure and Operations

The text of Marin Wildfire Prevention Authority's Joint Powers Agreement (JPA) conveys the varied concerns and practices that have been central to wildfire preparedness work in Marin over the last several decades. The JPA's opening clauses mention the efforts to organize around wildfire preparedness in Marin County that led up to MWPA's establishment, including the 2016 CWPP, the 2018 Lessons Learned Report, and the 2019 Civil Grand Jury. Having established these precedents for the new agency, the JPA outlines the structure and responsibilities of the organization. As a Joint Powers Authority, MWPA coordinates between member agencies to plan, fund, and execute wildfire risk mitigation and preparedness work. **(See Appendix A)**

MWPA's Board of Directors includes elected leaders from each member agency. The Board elects a President and Vice President each year. While terms last only one year, officials are eligible for re-election. MWPA's Operations Committee and Advisory/Technical Committee are also comprised of representatives from each member agency. By requiring that each of these branches of the organization includes each member agency, MWPA ensures a broad representation throughout Marin County. To ensure consensus across diverse member agencies, MWPA requires that a majority of Board members or committee members present vote in favor to pass measures and approve proposals. To account for uneven population distribution, however, both the Board of Directors and the Operations Committee also use weighted voting systems. To pass a majority vote in either case, the directors or committee members voting in favor must represent over fifty percent of Marin residents according to the most recent census. This system encourages investment and participation from member agencies of

varying sizes. MWPA also encourages engagement from community members through its Citizen's Oversight Committee, which reviews the agency's spending on a yearly basis. The Citizen's Committee aims to represent the interests of several stakeholder groups, as such, its members include representatives from five distinct geographical areas of Marin, as well as from taxpayer organizations, environmental organizations, fire preparedness organizations, and from non-partisan civic organizations.

Another means by which MWPA engages stakeholders and Marin residents in wildfire preparedness work is through the agency's Ecologically Sound Practices (ESP) Partnership. The ESP Partnership brings together MWPA member agencies—that is, fire districts and municipal governments—and the Marin environmental community. Beginning in July 2020 committees met weekly for over a year and a half to identify practices that would help achieve wildfire prevention goals, preserve and protect environmental quality, aid in minimizing greenhouse gas emissions and sequester and secure carbon associated with wildfire preparedness work. Initial committees swiftly grew to include numerous environmental groups alongside fire managers. Members of the environmental community were able to contribute expertise regarding Marin native plants and wildlife.¹³ In addition to developing best-practices for vegetation management and defensible space work, the ESP Partnership has also generated materials that can be incorporated into MWPA and FIRESafe Marin public education programs. The coalition continues to work to advise those performing wildfire preparedness work on best practices in keeping with environmental, climate, and sustainability concerns and generate resources to promote the use of ecologically

¹³ Mike Swezy. "Ecologically Sound Practices Partnership: Community Collaboration Delivers for the Environment." *News from Marin Conservation League*. (September - October 2021) 2.

sound practices throughout the county. The coalition produced “Environmentally Sound Practices” **(See Appendix F)** and submitted this to MWPA as advisory to Authority staff to identify the critical planning and project considerations to protect environmental quality associated with all of MWPA’s vegetation management, defensible space, and carbon and biomass management work. The document remains under review by MWPA legal and technical staff and may undergo slight revisions prior to adoption by the MWPA Board of Directors. As it continues to adjust alongside the new agency, the ESP Partnership now meets monthly to discuss current and prospective MWPA projects. The partnership also facilitates several working groups, which focus on specific themes and issues; these include Vegetation Management and Habitat Protection, Carbon Resource Management, and Defensible Space for Ecological Benefit. **(See Appendix E)**

Just as MWPA leadership is structured to ensure broad representation across Marin, the agency’s funding allocations are organized to enable the agency to address varied wildfire preparedness measures. 60% of the agency’s funding is dedicated to practices that directly impact wildfire risk mitigation, including vegetation management, wildfire detection, evacuation plans and alerts, public education, and grants. Of funding allocated for vegetation management, 80% must be allocated within the operational zone from which the funding was generated. 20% of the agency’s funding are allocated to defensible space and fire-resistant structure evaluations. Given that the areas for which MWPA’s member agencies are responsible vary considerably in terms of terrain, environment, population, and thus wildfire risk, the agency also dedicates 20% of its

funding to local-specific wildfire prevention efforts. The funding of local-specific efforts is distributed in proportion to revenue raised within the given member agency's tax rate area. These proportions are averaged over five year periods, which enables the agency to dedicate funding to large, or high priority, projects in particular geographic areas as needed and to redistribute funding more evenly in following years. This flexibility allows the agency to undertake ambitious, urgent projects in areas of the county where services are most needed. This way, the agency aims towards equitable spending across each of its operational zones.

The MWPA organizes its operations across five operational zones. The zones correspond to distinct geographic areas of Marin County, within which one or more member agencies may perform wildfire preparedness work. The zones include: Novato, the responsible member agency of which is Novato Fire Protection District; the San Rafael Area, including the City of San Rafael and Marinwood CSD; Central Marin, which is serviced by the City of Larkspur, Kentfield Fire District, Sleepy Hollow Fire District, the Town of Corte Madera, Town of Fairfax, Town of Ross, and Town of San Anselmo; Southern Marin, for which the member agencies are City of Mill Valley, Muir Beach CSD, and Southern Marin Fire District; and West Marin, which includes Bolinas Fire District, County of Marin Fire, Inverness Fire District, and Stinson Beach Fire District. Marin County Fire Department operates across all five zones, due to disparate areas of county jurisdiction, which include a substantial presence in Southern Marin. The MWPA works to coordinate wildfire preparedness and risk mitigation work across member agencies within each operational zone. **(See Appendix B)**

After securing funding with the passage of Measure C, the most significant challenge that the MWPA was building out the organization while actively implementing projects. While the JPA gave a framework within which to organize the new agency, much was left to be done in terms of establishing operations on the ground. The new agency was under pressure, as immediate progress on wildfire preparedness projects was important in its own right, but also a means of demonstrating to voters that the recently formed organization would make a difference in the county. The committee structure set by MWPA's JPA agreement helped the organization hit the ground running. Because the Board of Directors, Operations Committee, and Advisory/Technical Committee each include representatives from all member agencies, committees were familiar with the needs and capabilities of communities throughout Marin. Leaders already involved in wildfire prevention work in each jurisdiction were able to draw on their expertise and knowledge of local conditions to determine the priorities of MWPA projects.

Within MWPA, projects are developed from the ground up. Rather than being determined by the Executive Committee and passed down to Operations and Advisory/Technical Committees, the Operations Committee spearheads a general strategy, which is conveyed to the Advisory/Technical Committee for review. The Advisory/Technical Committee develops projects that align with the Operations Committee's strategy. The Advisory/Technical Committee includes wildfire preparedness practitioners, whose first-hand knowledge of and experience with initiatives like vegetation management and defensible space inspections presents a strong foundation with which to design new projects. The Operations Committee

reviews and makes adjustments to projects before recommending approval to the Finance Committee, Executive Committee and finally the Board. By the time projects are passed on to the Board of Directors for approval, they've already moved through several stages of development, and review. MWPA's weighted voting process encourages involvement of all members regardless of their population and leads to informed consensus-building throughout the organization. Projects must have approval from at least 50% of member agencies, whose jurisdictions must represent at least 50% of the population within MWPA's service area, to move forward. MWPA's project development process also includes key features—namely the Citizens Oversight Committee and opportunities for public comment at Board of Directors meetings—that allow for community engagement in the progress of MWPA projects.

Working between numerous member agencies to serve the needs and interests of varied communities, MWPA members recognized early on that maintaining progress on projects would require comprehensive organization. One of the agency's first efforts was to put together a Work Plan, which would lay out priorities and initiatives for its first year of operation. The Operations Sub-Committee drafted MWPA's 2020 Work Plan within the agency's first months of operation, in response to the urgency of wildfire preparedness work. Vegetation management, or fuel reduction, evacuation improvements, and public education, were some of the key areas outlined for immediate address. In addition to outlining these program areas, the report also listed guiding principles for the new agency: public safety and risk reduction, transparent and effective use of public funds, coordination and collaboration among agencies and residents, incentivizing voluntary compliance, ecologically sound practices, and social

and environmental equity. The Work Plan not only established such priority areas and guiding principles, but also included a comprehensive overview of the agency's most urgent projects. Project descriptions included tables of detailed information, including rationale, timeline, anticipated outcomes, and cost, as well as maps showing the areas that each project would serve. Consolidating disparate projects throughout the county in this way helped MWPA work towards its goal of ensuring the consistency of countywide wildfire preparedness. **(See Appendix D)**

While at 100 pages in length, the 2020 Work Plan was no small effort, it was somewhat preliminary and operated as a first step towards MWPA's more extensive operation throughout Marin. The agency's 2021-2022 Work Plan, at just over 1,000 pages, reflected this more expansive vision. The 21-22 Work Plan followed the same format as that of the 2020 Work Plan and included numerous projects among each operational zone and member agency. The majority of the plan was taken up by project proposals, which were organized according to area. The level of detail and comprehensiveness of the 2021-2022 Work Plan demonstrates how MWPA works as a coordinating body between member agencies. Representatives from member agencies most familiar with the concerns and needs of their area are able to contribute their knowledge to MWPA project development through the Operations and Advisory/ Technical Committees. By consolidating projects across jurisdictions, MWPA helps member agencies stay informed of each other's initiatives so that they can best focus their time and resources. While the 2021-2022 Work Plan emerged from a successful collaborative effort, its publication was not without its difficulties.

The experience of developing the 2021-2022 Work Plan not only helped further the goals and ambitions of the new agency, but also brought to light the wildfire authority's staffing needs. MWPA was structured to ensure that the majority of its funding would be spent on projects, it was explicitly intended to be a lean, efficient, organization. Still, the process of developing the most recent Work Plan demonstrated that the agency needed greater support in coordinating between member agencies and keeping track of the authority's initiatives. The flexibility of the authority's JPA has allowed the organization to grow slowly through its first year of operations and add staff on an as-needed basis. While undertaking the new Work Plan, it became clear that the agency would benefit from a dedicated Planning and Program Manager who would coordinate between member agencies and provide a wholistic overview of projects across different jurisdictions.

To further supplement the work of agency staff, MWPA contracts a third-party firm to address environmental compliance. MWPA projects are required to comply with the California Environmental Quality Act (CEQA). CEQA mandates that government agencies assess and address possible environmental impacts before undertaking projects. Important wildfire preparedness measures, such as vegetation management, have to be examined to ensure that they comply with CEQA protocols. Because of the demanding nature of the CEQA process, it was more efficient for MWPA to contract a firm to handle CEQA compliance than it would have been to devote limited staff resources to the procedure. The firm's expertise and experience allows it to work efficiently on environmental compliance so that MWPA staff can focus on coordinating between member agencies and tracking disparate projects. By relying on a third-party

to ensure environmental compliance, MWPA avoids delaying projects and is able to dedicate more of its staff and resources to ensuring that work on projects moves forward on the ground.

While the Planning and Program Manager and third-party environmental compliance firm have greatly contributed to MWPA's operations in its first years, there remain some additional staffing needs. On-the-ground staff is needed to conduct biological surveys and complete other work to abide by environmental compliance protocols. Opening such specialized positions also creates a need for greater administrative assistance. Administrative concerns include records management. More dedicated records management would assist the agency in the event of a public-records request or litigation, saving agency staff the effort of having to find documents at a moment's notice. It's worth bearing in mind that MWPA is somewhat limited in its ability to hire additional staff, as one provision in its JPA requires that administrative costs comprise no more than 10% of project budgets. The language of the agency's JPA allows the agency some flexibility, however. Because the Board of Directors has the ability to determine what administrative costs are, it can respond to agency needs to ensure that project spending complies with the JPA. For instance, while MWPA's current staff of Executive Officer and Planning and Program Manager are provided for as part of the agency's administrative costs, if the agency were to hire staff to perform more operational work, these positions may be funded as part of project costs and thus would not affect the 10% limit.

One characteristic that has enabled MWPA to maintain operations with such light staffing is the strength of its member agencies and community partnerships.

Larger member agencies, such as San Rafael Fire and Novato Fire, have been able to take the lead of MWPA core projects within their jurisdictions so that MWPA staff can focus on other areas. Member agencies are especially prepared for taking on leadership in project implementation because of their involvement in project development and planning through MWPA's Operations and Advisory/Technical Committees. This collaboration between member agencies has helped to ensure that wildfire preparedness work is consistent across MWPA's service area. Members with particular experience and expertise are able to share their knowledge within and across MWPA agencies. In some instances, larger member agencies are also able to supplement the resources of smaller ones, so that all are able to move forward on projects. In addition to its member agencies, MWPA also works closely with other organizations and branches of local government. Some key partners include FIRESafe Marin, local land management agencies, the county's Department of Public Works, as well as more informal networks such as the North Bay Watershed association. Maintaining relationships with complimentary agencies and organizations not only strengthens MWPA's operations within Marin county, but also creates opportunities for agencies to work together to apply for state and federal grants to increase their wildfire preparedness resources.

While such community partnerships have been essential to MWPA's success so far, they have also created some challenges for the organization. One concern has been that residents may perceive MWPA as redundant when they see FIRESafe Marin leading wildfire education programs and chipper days, for instance, without understanding that MWPA works closely with and funds the efforts of FIRESafe Marin.

This kind of dynamic has made it important for MWPA to publicize its operations and educate county residents about its contributions to wildfire preparedness in the area. It bears noting, however, that this dynamic will likely change with time. As residents become more familiar with the new agency they will be more likely to understand its unique contributions. Also, as the agency grows and is able to take on more wildfire preparedness work, such as managing chipper days directly, it will be less likely to be perceived as redundant. Nonetheless, it remains important for the agency to understand how it is perceived by residents as the ten-year sunset on Measure C means that Marin voters will be called to extend the tax that funds MWPA in 2030.

Learning from MWPA: Fire Resilient Governance

In establishing a new wildfire preparedness agency, Marin county fire managers, public officials, and community leaders, addressed a question that many communities are likely to face as climate change, ongoing development in the Wildland-Urban Interface, and other factors contribute to the increasing intensity of fire seasons: how can we devise governmental structures that can adapt to and mitigate quickly changing fire risks? In Marin, the threats posed by wildfires are felt acutely—cataclysmic fire having struck nearby communities in recent years. The urgency of this issue encouraged those involved with planning MWPA to work quickly and efficiently to develop a structure that was capable of evolving over time to suit the county’s wildfire preparedness needs.

In a sense, the structure of the agency mirrors the goals of its projects: fire resiliency. Given the present ubiquity of wildfire, wildfire preparedness projects cannot be expected to prevent the outbreak of wildfire but rather must aim to reduce risks and improve a community's ability to live with occasional fire. The structure of the MWPA reinforces these tenets of fire resiliency insofar as it enables the organization to adjust to continually changing circumstances and to adapt under variable conditions. As such, we can understand the MWPA as modeling a kind of 'fire resilient governance'.

As other communities that face wildfire risk may become interested in establishing similarly fire resilient agencies, there are several characteristics of the MWPA worth emphasizing. First, the agency's breadth has contributed to its ability to improve fire resiliency. By coordinating across a diverse array of member agencies, MWPA is able to draw on local expertise throughout the county to ensure consistent wildfire preparedness measures are consistent. This level of consistency is paramount in wildfire preparedness, as wildfires do not obey jurisdictional boundaries. Strengthening wildfire preparedness in one locality improves fire resiliency across the county. Second, the agency's flexibility has positioned it to adapt and respond as conditions vary throughout the county and over time. Having built some flexibility into its JPA, the MWPA has been able to build-out gradually according to the county's most urgent wildfire preparedness needs. As the agency maintains some flexibility, it will be able to adapt to changing levels of fire risk as social and environmental factors shift. Finally, encouraging community engagement has allowed MWPA to reach important constituencies within its operational zones. Developing structures within the organization to facilitate community engagement has allowed impacted residents to

have a voice in matters of wildfire preparedness. The combination of these characteristics enables MWPA to model fire resiliency while also improving fire resiliency throughout Marin county.

Attachment B

Appendix A – MWPA JPA

**JOINT EXERCISE OF POWERS AGREEMENT
FOR
MARIN WILDFIRE PREVENTION AUTHORITY**

This Joint Exercise of Powers Agreement for Marin Wildfire Prevention Authority ("Agreement") is entered into pursuant to Sections 6500 *et seq.* of the California Government Code, by and between the following local agencies: the cities of San Rafael, Mill Valley, Larkspur and Belvedere ("Cities"); the towns of San Anselmo, Corte Madera, Fairfax, and Ross ("Towns"); the County of Marin (including Service Areas 13, 19 and 31 collectively referred to as "County"); the Fire Protection Districts of Southern Marin, Novato, Tiburon, Kentfield, Stinson Beach, Bolinas, and Sleepy Hollow, the Marinwood Community Services District, the Inverness Public Utility District, and Muir Beach Community Services District ("Districts"); "Cities," "Towns," "County," and "Districts" are referred to in their individual capacities outside of this Agreement as "Local Agencies," and are referred to for the purposes of participation in this Agreement as "Member" or "Members".

RECITALS

WHEREAS, the growing wildfire risk in Marin County does not respect jurisdictional boundaries and needs immediate action and sustained commitment to better protect Marin residents, homes and businesses; and

WHEREAS, intensifying climate change and extensive fuel build-up are contributing to the increasing threat of wildfire throughout Marin County and, to the extent possible, should be addressed through ecologically sound practices that minimize release of greenhouse gases and protect the biodiversity and resilience of Marin's landscapes; and

WHEREAS, individual homes and properties are only as fire resilient as the surrounding homes and properties within each neighborhood or area; and

WHEREAS, the more than 260,000 people living in Marin County receive fire protection and emergency response services provided by 19 separate cities, towns, fire districts and the County of Marin and no single agency currently exists for coordinating wildfire prevention; and

WHEREAS, local fire agencies, communities, emergency service providers, city and towns governments and the County of Marin must coordinate wildfire prevention and disaster preparedness and mitigation, including maintaining defensible space, reducing combustible vegetation, making homes fire resistant and planning for organized evacuation in an emergency; and

WHEREAS, in 2016 the Marin County Fire Department published a *Community Wildfire Protection Plan*, identifying specific steps needed to reduce the risk of wildfire and related loss of life and property in Marin; and

WHEREAS, in 2018 Marin County published *Lessons Learned from North Bay Fire Siege*, summarizing key findings and conclusions from the 2017 wildfires that devastated

Attachment B

Sonoma, Napa, Lake, Solano and Butte counties, burned nearly 250,000 acres, destroyed nearly 9,000 structures, forced 90,000 evacuations, caused \$14.5 billion in property damage and killed 44 people; and

WHEREAS, in 2019 the Marin County Civil Grand Jury issued *Wildfire Preparedness: A New Approach*, a report identifying an urgent need for a coordinated wildfire prevention program in Marin and providing detailed recommendations for reducing wildfire risk and securing dedicated funding for wildfire prevention programs; and

WHEREAS, efforts are needed to assist seniors, persons with disabilities, and low-income households to maintain defensible space, make homes fire resistant, and prepare for emergencies to mitigate wildfire threats to structures and defensible space; and

WHEREAS, each of Marin's communities has unique local needs such as wildfire risk from homeless encampments or road widening for safe evacuations and the Marin Wildfire Prevention Authority will seek to address these specific local needs with a local wildfire mitigation program that assists local fire agencies in meeting unique community needs while sustaining a core countywide program for consistency; and

WHEREAS, the most effective way to protect all of our communities from the risk of wildfire is to come together in a joint powers authority to implement a countywide program of priority fire prevention, education and vegetation management; and

NOW, THEREFORE, for and in consideration of the mutual benefits, covenants, and agreements set forth herein, the Members agree as follows:

SECTION 1. Authority and Purpose

- a. This Agreement is made under the authority of Sections 6500 through 6515, inclusive, of the California Government Code, among the Members.
- b. The purpose of this Agreement is to establish a Joint Powers Authority separate from the Local Agencies. This Joint Powers Authority is to be known as the Marin Wildfire Prevention Authority ("Authority"). The Authority will plan, finance, implement, manage, own and operate a multi-jurisdictional and county-wide agency to prevent and mitigate wildfires in Marin County. Each member individually has the statutory ability to provide fire suppression, protection, prevention and related incidental services. The purpose and intent of this Agreement is to jointly exercise the foregoing common powers in the manner set forth herein.

SECTION 2. Term of Agreement

This Agreement becomes effective upon the first date that at least half of the 19 Local Agencies listed above (i.e. 10 Local Agencies) have approved this Agreement at a public meeting. It shall remain in effect until it is terminated pursuant to Section 16.

Attachment B

SECTION 3. Membership

- a. **Initial Membership.** To become an initial Member, a Local Agency must execute this Agreement and approve the County of Marin placing the tax measure on the ballot by October 31, 2019. A Local Agency geographically located in Marin County that possesses fire management responsibilities must adopt a resolution of their governing board to become a participating signatory to this Agreement and Member of the Authority. Should an entity defined in this Agreement as a Member of the Authority fail to meet the October 31, 2019 deadline for approval of the Agreement and tax measure, this Agreement shall be interpreted to remove that Local Agency from the definition of Member, and any rights or responsibilities of that entity shall not apply.
- b. **Successor Membership.** If, due to changes in circumstances (including, but not limited to changes in fire suppression responsibility approved by LAFCO) a Member's fire suppression responsibility is transferred to a new or different public agency, that new or different public agency shall be admitted as a Member upon approval of such membership and this Agreement by such public agency's governing body.
- c. Should the tax measure to fund the Authority fail to pass in an election in March 2020, this Agreement is terminated and shall be of no further effect upon certification of the election results.

SECTION 4. Board of Directors

- a. The Authority will be governed by a Board of Directors comprising elected leaders from each Member to ensure that wildfire programs and resources are directed to areas of greatest need and opportunity for community benefit.
- b. The Authority shall be governed by the Board of Directors which is hereby established. The Authority shall not have responsibility for any services or duties set forth in this Agreement unless and until the tax measure is passed by the voters in a certified election. The Board of Directors shall be comprised of Directors who are elected officials of the Members, and each Member shall have one Director on the Board of Directors.
- c. The Board of Directors shall hold at least two meetings each year as determined by its bylaws. Special Meetings of the Board may be called in accordance with the provisions of the Brown Act and Government Code Section 54956.
- d. Minutes of the adjourned, regular and special meetings of the Board shall be kept and said minutes shall be forwarded to each member of the Board within thirty days after each meeting. A majority of the Directors of the Board will constitute a quorum; however, if the number of Members is an even number, then 50% of the Directors of the Board will constitute a quorum. In the event of a meeting of the Board with less than a quorum, the present Directors will only have the power to dismiss a meeting. For purposes of conducting business, a majority of the

Attachment B

quorum will be authorized to act on behalf of the Authority, subject to the voting conditions set forth in Section 4.f.

- e. The Board shall elect, at its first meeting of each fiscal year, a President and Vice President. The President and Vice President shall serve one-year terms, but can be re-elected. The President shall represent the Authority and execute any contracts and other documents when required by the bylaws. The Vice President shall serve in the absence of the President.
- f. **Voting.** For all votes conducted by the Board, a proposed motion subject to vote passes when both following conditions are satisfied: (1) a majority of the Directors present vote in favor of a motion, and (2) the Directors present and voting in favor of a motion represent, in the aggregate, according to the then latest general census, over 50% of the population represented by the Member agencies present in the quorum.
- g. The Board may adopt from time to time such policies, procedures, bylaws, rules and regulations for the conduct of its affairs as deemed necessary by the Board.

SECTION 5. Powers of the Authority

- a. The Authority shall have all of the necessary powers and authorities granted by law to exercise the common powers of its members in providing wildfire suppression, protection, prevention and related and incidental services, with members retaining all powers.
- b. The Authority shall have all of the necessary powers to evaluate structures and defensible space and provide structural fire protection advice to enhance compliance of parcels of land and buildings meeting local fire and building codes, as well the power to create neighborhood and public education programs to reduce wildfire vulnerability and improve neighborhood preparedness.
- c. The Authority may contract with private companies and public agencies to create, implement and operate the Authority to provide wildfire protection and prevention, as well as to ensure buildings meet fire and building codes.
- d. The Authority may make and enter into contracts; adopt budgets; employ and retain agents and personnel; retain legal counsel; retain consultants and engineers; acquire grants; acquire, hold, lease and dispose of real and personal property; accept donations; sue and be sued; and possess and exercise all other powers common to the Members. The intent of this provision is to allow the Authority flexibility in making fiscally sound staffing decisions.
- e. The Authority may incur debt and issue bonds or any like instruments of no more than 10% of its annual budget in order to efficiently provide the service enumerated herein in compliance with the pertinent sections of the Government Code of the State of California. Specifically, the Authority can incur debt in its own name under any law authorizing a joint power authority to do so, including

Attachment B

Government Code Section 6540 *et seq.*, and the Marks-Roos Local Bond Pooling Act of 1985, and Government Code Section 6584 *et seq.*

- f. The Authority may authorize taxes pursuant to Government Code Sections 50075 *et seq.*, 53978, or any successor statutes as approved by voters in an election held in March 2020. No subsequent taxes or fees may be raised by the Authority without approval of Members.
- g. The Authority may exercise the powers permitted pursuant to Government Code Section 6504 or any successor statute. Pursuant to Government Code Section 6509.5, the Authority is entitled to invest any money in the treasury that is not required for the immediate necessities of the Authority.
- h. The Authority may do all things necessary and lawful to carry out the purpose of this Agreement.
- i. As required by Government Code Section 6509, one Member must be designated such that the power of the Authority is subject to the restrictions upon the manner of exercising power possessed by the Member. The County of Marin is designated as the Government Code Section 6509 public entity.

SECTION 6. Operations Committee

- a. The Operations Committee shall be responsible for creating a recommended annual budget for the Board and for creating a recommended annual work plan. The Operations Committee shall meet at least twice per year at a reasonable time before the Board must establish its budget. The Operations Committee representatives should strive for a balance of executive/administrative and fire expertise on the committee. The Operations Committee shall be composed of nineteen representatives who are agency staff, one from each of the Members.
- b. **Voting.** For all votes conducted by the Operations Committee, a proposed motion subject to vote passes when both following conditions are satisfied: (1) a majority of the representatives of the Operations Committee present vote in favor of a motion, and (2) the representatives of the Operation Committee present and voting in favor of a motion represent, in the aggregate, according to the then latest general census, over 50% of the population represented by the Member agencies present in the quorum.

SECTION 7. Advisory/Technical Committee

- a. The Advisory/Technical Committee shall be responsible to the Operation Committee for expert advice and recommendations regarding how the programs of the Authority should be developed and implemented. The Advisory/Technical Committee shall be comprised of one technical staff member from each Member agency and the Board shall adopt bylaws that establish the manner of appointment to the Advisory Technical Committee.

Attachment B

- b. The Advisory/Technical Committee shall hold at least two meetings each year. Special meetings may be called in accordance with the provisions of Government Code Section 54956.
- c. Agencies and entities such as Marin County towns or cities that are not a Member, Marin Municipal Water District ("MMWD"), Marin County Open Space District ("MCOSSD"), National Park Service, State Parks, and FIRESafe MARIN may be invited to participate as at-large, non-voting Advisory/Technical Committee members. In addition, relevant Marin County land management agencies, private companies and community organizations may be invited by the Board to participate as at-large, non-voting Advisory/Technical Committee members. Said at-large Advisory/Technical Committee members shall be fully recognized by the Advisory/Technical Committee for the purpose of interaction and discussion. These at-large Advisory/Technical Committee members shall be appointed by their respective organizations.

SECTION 8. Citizens' Oversight Committee

The Board of Directors will create a Citizens' Oversight Committee. The Citizens' Oversight Committee will review Authority spending on an annual basis following the report from the Treasurer. After review of the previous year's work program and the financial audit, the Citizens' Oversight Committee will adopt a report describing the extent to which the funds have been spent consistent with the tax measure and provide feedback to the Board of Directors. Citizens' Oversight Committee participants will be residents who are neither elected officials of any government entity, nor public employees of any Member. Service on the Citizens' Oversight Committee will be restricted to individuals who reside in Marin County. Participants on the Citizens' Oversight Committee will be required to submit a statement of financial disclosure and participation will be restricted to individuals without economic interest in any of the Authority's projects. The Citizens' Oversight Committee may create subcommittees to monitor the deliberations of the Board of Directors, Operations Committee, and the Advisory/Technical Committee. The Board of Directors shall appoint participants to Citizens' Oversight Committee from applications received as set forth below:

- Five participants, each residing in one of these five general geographical areas: West Marin, Novato, San Rafael, Central Marin, and Southern Marin.
- One participant from a taxpayer organization of Marin County.
- One participant from environmental organizations of Marin County.
- One participant from FIRESafe MARIN or similar fire prevention organization.
- One participant from a non-partisan civic organization such as League of Women Voters.

SECTION 9. Funding

- a. The Board shall adopt an annual budget for the Authority's activities within ninety (90) days of the date the Elections Office certifies the successful passage of the tax measure proposed concurrently with this Agreement to fund this Authority, and by June 1 of each succeeding year. In adopting the annual budget,

Attachment B

the Board must consider recommendations from the Operations Committee. The annual budget shall identify the programs of the Authority and allocate funds by program. The budget and accounting system shall account for direct and overhead costs by program. The Board shall allocate these costs for each program with the adoption of the annual budget. To the extent changes to the budget under California law require approval of more than a simple majority of Members, the population representation requirement of Section 4.f. shall not increase. To accelerate services being provided to the community, during the first year of operations any core program funds not allocated to Authority start-up costs will be returned to Members in proportion to the tax revenue raised that fiscal year in each Member's respective tax rate area for uses that are consistent with the tax measure funding the Authority. This provision shall not be construed to prevent the Board of Directors from allocating funds for multi-year projects or programs.

- b. The core program functions of the Authority will be funded by 60% of the tax measure proceeds and will consist of, but not be limited to, vegetation management; wildfire detection; evacuation plans and alerts; grants; and public education. The Authority may allocate core funds to local wildfire prevention efforts, should the Board of Directors determine the core functions of the Authority are being served. Vegetation management funds will be allocated with consideration towards equitable spending over the five operational zones. As part of the five year review of the funding levels described in Section 9f, at least 80% of the revenue generated for vegetation management by each operational zone should be allocated within the respective zone. If this requirement is not met, it must be remedied within the next 5 year period.
- c. Defensible space and fire-resistant structure evaluations, and mitigation of fire threats thereof, will be funded by 20% of the tax measure proceeds and will be done on a shared service basis or by the responsible Member consistent with Section 10. Within the defensible space program, an Abatement program shall be created by the Authority, funded with 2% of the total tax measure proceeds. Funds from this Abatement program are retained by the Authority, notwithstanding a Member selecting to locally administer pursuant to Section 10. The Authority will only enforce a uniform abatement code. Litigation of abatements is the responsibility of the Member.
- d. Local-specific wildfire prevention efforts will be funded by 20% of the tax measure proceeds and allocated to each Member in proportion to revenue raised in each Member's respective tax rate areas. Members must certify that the tax measure proceeds are used consistent with the purpose of the Authority and that the tax measure expenses result in a higher level of service than would otherwise be provided by the Member.
- e. An administrative cost of not more than 10% will be budgeted for each program, i.e. the core program functions and the Authority administered defensible space evaluation program. Should a Member locally administer the defensible space evaluations pursuant to Section 10, an administrative cost will not be withheld by

Attachment B

the Authority for that program. The Board shall determine the methodology for calculating administrative costs.

- f. In Fiscal Year 2025-26, 2030-31, 2035-36 and continuing every five years thereafter, the Board may alter the funding levels of the core program functions of subsection 9.b. and the defensible space evaluations from subsection 9.c. The local-specific wildfire prevention efforts of subsection 9.d. will remain funded by 20% of the tax measure proceeds. A vote to alter the funding levels pursuant to this section shall require two-thirds approval of Directors voting to alter the funding levels, while maintaining the over 50% of the population represented by the Member agencies requirement in accordance with the voting rules set forth in Section 4.f. Should the Board approve changes to the funding levels of the programs, to provide adequate notice to Member agencies, those changes will not go into effect until two fiscal years after the changes were approved. For example, if funding levels of programs are altered during Fiscal Year 2025-26, those changes will not be implemented until the budget of Fiscal Year 2027-28.

SECTION 10. Option to Locally Administer the Section 5.b. Defensible Space Program

- a. Should a Member choose to locally administer the Authority power set forth in Section 5.b., that member shall evaluate structures and defensible space so property owners can enhance compliance with fire and building codes through homeowner education and, as necessary, enforcement follow-up. The Member choosing to locally administer the powers in Section 5.b. must certify that the Member shall use the funds provided by the Authority exclusively to evaluate defensible space and to enhance compliance with structures and land meeting fire and building codes, and not for any other purpose. Tax measure proceeds will be allocated to Members choosing to locally administer in an amount approximately equal to each Member's proportion of revenue raised in each Member's respective tax rate areas, as determined by the Board. For those Members remaining in the defensible space program, the Authority will expend the tax measure proceeds in an amount approximately equal to each Member's proportion of revenue raised in each Member's respective tax rate areas. Additionally, the Authority shall be entitled to retain 2% of the overall tax measure proceeds for the Authority's Abatement program, regardless of how many Members choose to exclusively manage their own defensible space program.
- b. Eligibility for a Member to elect to locally administer the defensible space program shall be effective beginning in Fiscal Year 2027-28, 2032-33, 2037-38 and continuing every five years thereafter. A Member must provide notice that it elects to opt-out or rescind its opt-out election by October 31 for the next fiscal year beginning on July 1. A Member may opt-out of the defensible space program before May 30, 2020 by providing notice to the Authority. Members can only subsequently opt out during certain years as set forth above. A Member choosing to exclusively manage its own defensible space program may be responsible for a reasonable exit fee, as determined by the Authority. Members

Attachment B

can opt-back-in at any time by providing notice that it elects to opt-back-in by October 31 for the next fiscal year beginning on July 1.

SECTION 11. Exemptions

The Authority shall be responsible for technical tax adjustments, consistent with the ballot measure. Whenever possible, the Authority must defer to reasonable requests from the Marin County Tax Collector to accommodate exemptions for parcels that are roads or creek beds, as well as split parcels ineligible for an assessor parcel combination solely because the parcels are not in the same tax rate area.

SECTION 12. Duties of Treasurer

- a. The Treasurer of the Authority shall be the Treasurer of one of the Members. The Authority at its first meeting and thereafter at its first meeting of the fiscal year shall elect a Treasurer and establish terms with the Member agency. This person shall also function as the Controller of the Authority.
- b. The Treasurer shall serve as the depository and have custody of all Authority funds and establish and maintain such books, records, funds, and accounts as may be required by generally accepted accounting practice, shall cause an independent annual audit of the accounts and records and comply with all requirements of Government Code Sections 6505, 6505.1, 6505.5 and 6505.6.
- c. The Treasurer, within one hundred and twenty (120) days after the close of each fiscal year ending on June 30, shall give a complete written report of all financial activities for such fiscal year to the Members.

SECTION 13. Debts and Liabilities

As permitted pursuant to Government Code Section 6508.1, no debt, liability, or obligation of the Authority shall constitute a debt, liability, or obligation of any Member and each Member's obligation hereunder is expressly limited only to the appropriation and contribution of such funds as may be levied pursuant to this Agreement or as the Member may agree.

SECTION 14. Insurance and Indemnification

The Authority shall acquire such insurance protection as is needed to protect the interests of the Authority and the Members, and such cost shall not count toward the administrative fee of Section 9.e. The Authority may use self-insurance and may contract with a Member for insurance services. The Authority shall defend and indemnify and hold harmless the Members and each of their respective officers, agents and employees, from all claims, losses, damages, costs, injury and liability of every kind, nature and description directly or indirectly arising from the performance of any of the activities of the Authority or the activities undertaken pursuant to this Agreement.

Attachment B

SECTION 15. Privileges, Immunities and Other Benefits

In accordance with California Government Code Section 6513, all of the privileges and immunities from liability, all exemptions from laws, ordinances and rules, and all pension, relief, disability, workmen's compensation, and other benefits which apply to the activity of the trustees, officers, employees or agents of the Members when performing their functions shall apply to the same degree and extent while engaged in the performance of any of their functions and duties for the Authority.

SECTION 16. Termination; Disposition of Assets.

- a. Should the tax measure to be placed on the ballot in March 2020 fail to pass or is subsequently repealed, this Agreement is terminated and shall be of no further effect upon certification of the election results.
- b. In accordance with Government Code Section 6512, upon termination of this Agreement, any surplus money in possession of the Authority or on deposit in any fund or account of the Authority shall be returned in proportion to the contributions made by the tax payers of each Member's jurisdiction. Any other property of the Authority shall be divided among the Members in such manner as shall be determined by the Authority in accordance with California law.
- c. If the tax measure is rescinded, all decisions of the Board with regard to determination of amounts to be transferred to Members or any successor shall be final.

SECTION 17. Severability

If any provision of the Agreement or its application to any person or circumstances is held invalid, the remainder of this Agreement and the application of the provision to other persons or circumstances shall not be affected.

SECTION 18. No Rights to Third Parties

All of the terms, conditions, rights and duties provided for in the Agreement are, and shall always be, solely for the benefit of the Members. It is the intent of the Members that no third party shall ever be the intended beneficiary of any performance, duty or right created or required pursuant to the terms and conditions of this Agreement. Nothing in this Section shall be interpreted to preclude the work of the Authority being done on private land.

SECTION 19. Notices.

Notices to Members under this Agreement shall be sufficient if delivered to the City Clerk or chief secretarial officer of the Member, or to any other person designated in writing by the Member.

Attachment B

SECTION 20. Prohibition Against Assignment.

No Member may assign any right, claim, or interest it may have under this Agreement, and no creditor, assignee or third-party beneficiary of any Member shall have any right, claim or title to any part, share, interest or assets under this Agreement.

SECTION 21. Amendments

This Agreement may be amended at any time by one or more supplemental agreements executed by mutual agreement of three-fourths (3/4) of the governing boards of the Members, so long as any amendment comports with the purpose of the voter approved measure, as set forth in Section 1 of this Agreement. Every ten years, the Marin County Board of Supervisors shall hold a public hearing for the purpose of considering the effectiveness of the tax measure and whether any changes in the tax measure should be placed before the voters.

SECTION 22. Agreement Complete

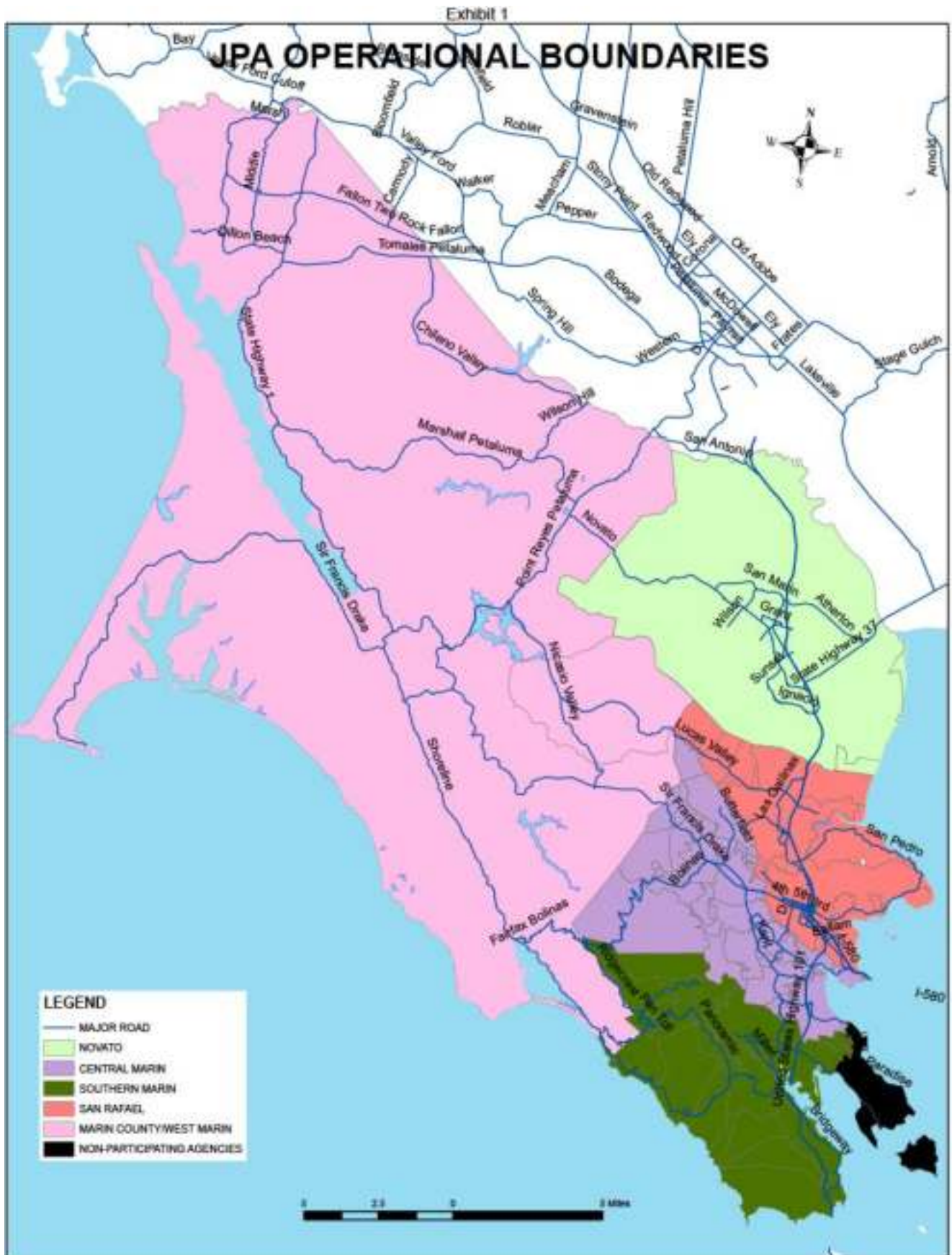
The foregoing constitutes the full and complete Agreement of the parties with respect to the subject matter hereof, and supersedes all prior understandings or agreements whether written or verbal. There are no oral understandings or agreement not set forth in writing herein. An such agreements merge into this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their proper officers thereunder duly authorized as of the date of approval by the public agencies that are parties hereto. This Agreement shall be executed in counterparts.

Dated: _____

By: _____

Appendix B – MWPA Operational Boundaries



Appendix C – MWPA Bylaws

Revised Final Draft – September 17, 2020

BYLAWS OF THE MARIN WILDFIRE PREVENTION AUTHORITY

ARTICLE I FORMATION

The County of Marin together with the cities of San Rafael, Mill Valley, and Larkspur; the towns of San Anselmo, Corte Madera, Fairfax, and Ross; the Fire Protection Districts of Southern Marin, Novato, Kentfield, Stinson Beach, Bolinas, and Sleepy Hollow, the Marinwood Community Services District, the Inverness Public Utility District, and Muir Beach Community Services District (each a “Local Agency Member”) entered into a Joint Powers Agreement as of April 2, 2020 (as subsequently amended from time to time, the “JPA Agreement”) in accordance with the Joint Exercise of Powers Act, Sections 6500 *et seq.* of the California Government Code, to form the Marin Wildfire Prevention Authority (the “MWPA”).

ARTICLE II PURPOSES

The MWPA was formed for the purposes of planning, financing, implementing, managing, owning, and operating a multi-jurisdictional and County-wide agency separate from the Local Agency Members to prevent and mitigate wildfires in Marin County. The goal of the MWPA is one of voluntary cooperation among Local Agency Members for the collective benefit of all Local Agency Members and residents of Marin County. It is the intent of all Local Agency Members that decisions of the Board should be made by consensus whenever possible.

ARTICLE III ORGANIZATION

Section 1. Governance by Board of Directors. As established in Section 4 of the JPA Agreement, the MWPA shall be governed by a Board of Directors (the “Board”) composed of one (1) representative of each Local Agency Member. The governing body of each Local Agency Member shall appoint an official to serve as a Director of the Board and up to two (2) alternates to serve in the absence of the appointed regular Director. Each Director shall hold office from the first meeting of the Board following his or her appointment until a successor is selected by the governing body of the Local Agency Member. Directors shall be elected officials or hold elective office by virtue of appointment.

Section 2. Terms of Directors; Events Causing Vacancy. The governing body of the Local Agency Member may determine the term of appointment of the Director appointed by the Local Agency Member. A vacancy on the Board exists on the occurrence of any of the following: (a) death of any Director, (b) the removal, dismissal, or resignation of a Director from the position he or she held with the Local Agency Member at the time he or she became a Director, (c) the declaration by resolution of the Board of a vacancy of the office of a Director who has been declared of unsound mind by an order of court or convicted of a felony after having been appointed as a Director, or (d) written notice to the Executive Officer or Clerk from the appointing Local Agency Member stating that the designation of the Director or alternate has been revoked, with revocation to be effective upon receipt unless the notice specifies a later time.

Section 3. Board of Directors Powers and Duties. The powers and duties of the Board, subject to the limitations of applicable law, the JPA Agreement, and these Bylaws, shall include all of the powers of the Board provided in Section 4 of the JPA Agreement except as may be expressly delegated to others pursuant to the provisions of the JPA Agreement, these Bylaws, or at the direction of the Board. Such powers and duties shall be exercised by and through the Board. The Board shall be responsible for the administration, management, and conduct of the MWPA's affairs including, but not limited to, the following:

- (a) setting policies and goals for the MWPA;
- (b) appointing, fixing the compensation of, supervising, and removing the Executive Officer and other MWPA staff;
- (c) annually reviewing the proposed MWPA budget and Work Plan and adopting an annual budget and Work Plan;
- (d) before the beginning of each fiscal year, adjusting the maximum parcel tax to be levied upon the parcels for the upcoming fiscal year, as provided in Section 3 of Marin County Board of Supervisors Ordinance No. 3716;
- (e) administering the Work Plan, providing for the design, financing, constructing, and implementation of MWPA programs, and determining the use of tax revenues in conformance with the parameters established in the Work Plan;
- (f) establishing Standing Committees including the Operations Committee (JPA Agreement Section 6), the Advisory/Technical Committee (JPA Agreement Section 7), and the Citizens' Oversight Committee (JPA Agreement Section 8) and, if necessary or desirable, Ad Hoc Committees to study specific problems, programs, or other matters that the Board has approved for study;
- (g) acting upon policy recommendations, including policy recommendations from committees;
- (h) entering into contracts or change orders;

(i) leasing, acquiring, constructing, managing, maintaining, and operating any equipment, buildings, works, or improvements for use in conformance with the parameters established in the Work Plan;

(j) acquiring, holding, or disposing of equipment or personal property by any lawful means including, without limitation, gift, purchase, lease, lease purchase, or sale;

(k) applying for any appropriate grant or grants under any federal, state, or local programs for assistance in developing and/or implementing the Work Plan or any of MWPA programs;

(l) receiving grants, gifts, contributions, and donations of property, funds, services, and other forms of financial assistance from persons, firms, corporations, and any governmental entity, subject to applicable reporting and other limitations as set forth in Article VII, below;

(m) approving any and all indebtedness incurred by the MWPA within the limitations set forth in Section 5(e) of the JPA Agreement;

(n) approving the initiation of any litigation by the MWPA (not including the authorization of defense brought against the MWPA or the initiation of a cross-complaint),

(o) providing oversight of the implementation of the MWPA's ongoing activities; and

(p) administering the MWPA in furtherance of all the above.

In connection with (f), above, the Board retains the ultimate legal authority to undertake any action that California law requires the full Board to approve and direct the Executive Committee, the Finance Committee, the Operations Committee and/or the Advisory/Technical Committee on a matter or to determine that a task otherwise delegated to the Executive Committee, the Finance Committee, the Operations Committee and/or the Advisory/Technical Committee shall be handled or reviewed by the full Board.

Section 4. Voting. As specified in Section 4(f) of the JPA Agreement, for all votes conducted by the Board, a proposed motion subject to vote passes when both of the following conditions are satisfied: (1) a majority of the Directors present vote in favor of a motion, and (2) the Directors present and voting in favor of a motion represent, in the aggregate, according to the then latest general census, over fifty percent (50%) of the population represented by the Local Agency Members, in the aggregate, present in the quorum.

Section 5. Reimbursement of Board Members. Board Members and members of Board Committees may receive reimbursement of expenses as may be determined by resolution of the Board to be just and reasonable.

ARTICLE IV

OFFICERS AND TERMS OF OFFICE

Section 1. **Officers.** The officers of the MWPA are the President and the Vice President of the Board, the Executive Officer, the Treasurer, and the Legal Counsel. All members of the Board are eligible to serve as President or Vice President of the Board. The Executive Officer, Treasurer, and the Legal Counsel shall serve at the pleasure of the Board, subject to the rights by any officer under an employment contract, if any, with the Authority. Any number of offices may be held by the same person, except that the Treasurer shall not serve concurrently as the Executive Officer.

Section 2. **Selection and Terms of Elected Officers.** As provided in Section 4(e) of the JPA Agreement, the President and Vice President are elected officers who shall be elected by the Board at the Board's first meeting each fiscal year or as soon thereafter as is practical. The President and Vice President shall each serve one (1)-year terms, and may be re-elected by the Board and shall not be subject to term limits so long as they remain eligible.

(a) **President.** The duties of the President are to supervise the preparation of the agenda for Board meetings, preside over Board meetings, and undertake other duties required by the JPA Agreement, these Bylaws or as may be assigned by the Board. The President shall represent the Authority and execute any contracts and other legal instruments approved by the Board.

(b) **Vice President.** The Vice President shall perform the duties of President in the absence of the President.

(c) **Secretary.** The Secretary shall (i) in accordance with Section 4(d) of the JPA Agreement, keep or cause to be kept, at the principal executive office of the MWPA or such other place as the Board may direct, a book of minutes of all meetings and actions of the Board and the Committees of the MWPA, with the time and place of holding the meeting, whether Regular or Special, and, if Special, how authorized, the notice given, the names of those present and absent at such meetings and the proceedings of such meetings; and (ii) prepare, give, or cause to be given, notice of, and agendas for, all meetings of the Board and Committees of the MWPA. He or she shall have such other powers and performs such other duties as may be prescribed by the Board. As provided in Section 4 of these Bylaws, the MWPA Executive Officer shall serve as Secretary.

(d) **Treasurer.** As established by Section 12 of the JPA Agreement, the Treasurer of the Authority shall be the Treasurer of one of the Local Agency Members. The Treasurer shall perform the duties set forth in Section 12 of the JPA Agreement, including ensuring compliance with all requirements of California Government Code Sections 6505, 6505.1, 6505.5, and 6505.6. The Treasurer shall be appointed by the Board on such terms as the Board and the Treasurer may agree and shall serve until a successor is appointed, but subject to review by the Board every two (2) fiscal years. If a vacancy occurs due to the Treasurer's

resignation or removal by a vote of the Board, then the Board shall appoint a replacement to serve as Treasurer on such terms as the Board and the Local Agency Member agency may agree.

Section 3. Removal. The President and/or the Vice President shall be subject to removal at any time by a vote of the Board, subject to the voting conditions set forth in Section 4(f) of the JPA Agreement. The Treasurer shall be subject to removal by a vote of the Board subject to the terms of the agreement between the MWPA and the Member agency then serving as Treasurer.

Section 4. Executive Officer. The Board shall employ an individual as an Executive Officer who shall be the chief administrator of the MWPA, subject to the Board's direction. The Executive Officer shall be responsible for the MWPA's day-to-day operations, organization, staff relations, preparation of the annual budget, supervising the activities of the Operations, Advisory/Technical, and Citizens' Oversight Committees and such other committees as the Board may create, and serving as Secretary of the Board, purchasing agent, and custodian of records of the MWPA. In general, he or she shall perform all duties incident to the position of Executive Officer and such other duties as may be required by these Bylaws or which may be assigned to him or her from time to time by the Board. The Executive Officer shall have expenditure authority as established by Board policy based on a recommendation from the Finance Committee. The Executive Officer shall report all such expenditures and change orders approved to the Board at its next meeting. Subject to the authority of and as directed by the Board, the Executive Officer shall have the authority to appoint, direct, and remove all staff of the MWPA and to retain and supervise any consultants and contractors to the MWPA.

Section 5. Other Personnel. The Board shall have the power to retain such additional officers, agents, employees, consultants, and contractors as it deems necessary to attain the objectives of the MWPA. Such officers and employees may also be, but are not required to be, officers and employees of the individual Local Agency Members. None of the officers, agents, or employees appointed by the Board shall be deemed, by reason of their employment by the Board, to be employed by any of the Local Agency Members or, by reason of their employment by the Board, to be subject to any of the requirements of such Local Agency Members.

Section 6. Status of Members' Officers and Employees. As provided in California Government Code Section 6513, all of the privileges and immunities from liability and other benefits that apply to the activity of officers, agents, or employees of any of the Local Agency Members when performing their respective functions within the territorial limits of their respective Agencies shall apply to them while engaged in the performance of any of their actions and duties extraterritorially under this Agreement.

Section 7. Bonding Requirement. The Board shall designate the officers or persons having charge of, handling, or having access to any property of the MWPA who shall be required to file an official bond with the Board. The amount of any such bond shall be established by the Board. Should the existing bond or bonds of any such officer be extended to cover the obligations provided herein, such bond shall be the official bond required herein. The premiums on any such bonds attributable to the coverage required herein shall be appropriate expenses of the MWPA.

ARTICLE V

**MEETINGS OF
BOARD OF DIRECTORS
AND
BOARD COMMITTEES**

Section 1. **Regular Meetings.** Pursuant to Section 4(c) of the JPA Agreement, there shall be not fewer than two (2) Regular Meetings of the Board each calendar year, with such meetings to be held on or about the third Thursday of May and the third Thursday of July each year. To ensure maximum public participation, all Regular Meetings of the Board and Standing Committee meetings should be held during late afternoons or evenings on working days unless a change in such Regular Meeting date and time is approved by the President in writing. The location of Regular Meetings shall be determined by the President.

Section 2. **Special Meetings.** Special Meetings may be called by the President in consultation with the Executive Officer. The date, time, and location of Special Meetings shall be determined by the President. Both a Special and a Regular meeting may be held on the same day.

Section 3. **Quorum.** A majority of Board members shall constitute a quorum for the transaction of business of the MWPA and a majority of the quorum shall be necessary to approve any action of the Board subject to the voting conditions set forth in Section 4(f) of the JPA Agreement.

Section 4. **Advisory/Technical Committee.** The Advisory/Technical Committee established by Section 7 of the JPA Agreement is advisory to the Operations Committee and will meet two (2) times each year, unless authorized by the President to hold additional meetings.

Section 5. **Executive Committee.** An Executive Committee of the Board is hereby created as a Standing Committee. The Executive Committee shall consist of five (5) Board members whose membership shall represent a geographic balance, including at least one (1) representative each from the five (5) operational zones of the MWPA: Northern Marin, Central Marin, Ross Valley, Southern Marin, and West Marin, and one (1) additional Board Member may be designated as an Alternate Executive Committee member as needed. The President and Vice President shall be fixed members of the Executive Committee. Members of the Executive Committee shall be appointed by the President and acknowledged by a majority of the Board. The President shall serve as Chair of the Executive Committee. The purpose of the Executive Committee is to advise the Board and plan Board activities. A quorum of the Executive Committee shall consist of three (3) Executive Committee members. To the fullest extent possible, appointment of an alternate shall be made so as to maintain geographical balance on the Executive Committee. Any Board member serving on the Executive Committee for the purpose of obtaining a quorum are only temporary Executive Committee members for one meeting and do not constitute a regular Committee member for future meetings.

Section 6. Finance Committee. A Finance Committee of the Board is hereby created as a Standing Committee. The Finance Committee shall consist of five (5) Board members whose membership may represent a geographic balance, including at least one (1) representative each from the five (5) operational zones of the MWPA: Northern Marin, Central Marin, Ross Valley, Southern Marin, and West Marin, and one (1) additional Board Member may be designated as an Alternate Finance Committee member as needed. The President or Vice President of the Board will be a fixed member of the Finance Committee. One (1) additional Board Member may be designated as an Alternate to the Finance Committee. Two members of the Operations Committee shall serve as members of the Finance Committee. Members of the Finance Committee shall be appointed by the President and acknowledged by a majority of the Board. The purpose of the Finance Committee is to advise the Board on financial matters as provided in a written statement of purpose prepared by the Board. A quorum of the Finance Committee shall consist of four (4) Finance Committee members.

Section 7. Additional Board Committees. In addition to the Committees created by the JPA Agreement and these Bylaws, the Board may establish Standing and Ad Hoc Committees for the purpose of developing recommendations to the Board. Ad Hoc committees may be appointed by the President. Any Director is eligible for appointment to a Standing or Ad Hoc committee. When appointing members of Standing and Ad Hoc committees, the President shall consider, to the extent possible, geographical balance and local representation. All Standing or Ad Hoc committees shall be chaired by a Board member. Rosenberg's Rules of Order shall govern the conduct of Standing Committee meetings.

(a) Standing Committees. All Standing Committees shall have a written statement of purpose. The President shall appoint and the Board shall acknowledge, the members to any Standing Committee. Each Standing Committee shall by majority vote elect a Chair at its first meeting who shall serve at the pleasure of the Standing Committee. Members of Standing Committees shall be appointed for one (1) year terms, or until the Committee is dissolved, whichever occurs first. Committees shall meet on the call of their Chair or as otherwise provided herein and in compliance with applicable law. A Standing Committee may exercise such powers as may be delegated to it, except that a Committee may not: (a) take any final action on matters which, under the JPA Agreement, require approval by the Board; (b) amend or repeal the Bylaws or adopt new Bylaws; (c) amend or repeal any resolution of the Board; (d) appoint any other committees of the Board or the members of these committees; or (e) approve any transaction which would violate any law, including the Political Reform Act (commencing with Section 81000 of the California Government Code) and/or Section 1090 of the California Government Code. Meetings and actions of any Standing Committee shall be in compliance with the Brown Act. Minutes shall be kept of each meeting of any Committee and shall be filed with the MWPA records.

Section 8. Brown Act Compliance. All meetings of the Board and of Standing Committees shall be governed by the provisions of the Ralph M. Brown Act (California Government Code Sections 54950 *et seq.*). The official agenda for each such meeting shall be posted to the MWPA website and as required by law. Clerks of other Local Agency Members shall be provided a copy of the agenda and are encouraged to post the agenda at their official posting locations so as to assure widespread notice of the meetings.

Section 9. *Parliamentary Authority.* Unless otherwise specified herein, Rosenberg's Rules of Order shall govern the conduct of MWPA Board meetings and the President's decision on any procedural question shall be final. No person shall address the Board at any meeting until he or she has first been recognized by the President.

Section 10. *Minutes.* Except with respect to closed sessions, the designee of the Executive Officer shall cause to be kept minutes of Regular and Special Meetings of the Board and any Standing Committee, and shall cause a copy of the minutes to be forwarded to each Board member for approval by the Board or the Standing Committee, where appropriate. All minutes shall be archived in the principal office of the MWPA and shall be posted on the MWPA website.

ARTICLE VI

RULES AND PROCEDURES

Section 1. *Annual Budget.* On or before May 1 of each year, the Executive Officer shall present to the Board a proposed operating budget for the coming fiscal year, and the proposed budget shall comply with all requirements set forth in Section 9 of the JPA Agreement. This proposed budget shall be voted on by the Board at its Regular Meeting in May and shall be approved by a Board resolution. The Executive Officer and Board may approve expenditures throughout the year consistent with the approved budget. Grant funds received by the MWPA from any federal, state, or regional agency to pay for budgeted expenditures for which the MWPA has received all or a portion of said funds from tax revenues shall be used as determined by the Board.

Section 2. *Local Agency Member Organizational Changes.* Any organizational change in a Local Agency Member that would result in the transfer of a Local Agency Member's fire suppression responsibility to a new or different public agency or that would otherwise impact its membership in the MWPA shall be submitted to the President not later than March 1 of each year. The President shall forward this notification to the Executive Officer for consideration in the preparation of the annual budget. Any organizational changes submitted by a Member after March 1 that would impact that Member's fire suppression responsibility or its membership in the MWPA shall be considered in the budget preparation of the following year.

Section 4. *Amendments to JPA Agreement.* As specified in Section 21 of the JPA Agreement, the JPA Agreement can be amended at any time by mutual agreement of three-fourths (3/4) of the Board, so long as any amendment comports with the purpose of the voter-approved measure. The JPA Agreement shall be amended by resolution and an affirmative vote of three-fourths (3/4) of the Board of Directors.

ARTICLE VII

CONFLICT OF INTEREST

The Board shall be subject to the conflict of interest rules set forth in the Political Reform Act (commencing with Section 81000 of the California Government Code) and Sections 1090 *et seq.* of the California Government Code, and the MWPA shall adopt a Conflict of Interest Code as required and as provided by the implementing regulations of the Political Reform Act.

ARTICLE VIII

AMENDMENTS

These Bylaws may be amended only upon two-thirds (2/3) affirmative vote of all of the Directors with such proposed amendment having been noticed to members not less than thirty (30) days prior to the date of the meeting.

ARTICLE IX

MISCELLANEOUS

Section 1. *Construction and Definitions.* Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the California Civil Code will govern the construction of these Bylaws. Without limiting the generality of the foregoing, the term "person" includes both the MWPA and a natural person. Any capitalized term not defined in these Bylaws will have the meaning ascribed to it in the JPA Agreement.

Section 2. *Partial Invalidity.* If any one or more of the terms, provisions, or sections of these Bylaws shall to any extent be adjudged invalid, unenforceable, void, or voidable for any reason whatsoever by a court of competent jurisdiction, then each and all of the remaining terms, provisions, and sections shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

Section 3. *Interpretation of Sections That Are Based on Provisions from Other Statutes, Applicable Ordinances, or Codes.* Sections of these Bylaws which are based upon or which paraphrase provisions of other statutes, ordinances, or codes have been included herein for reference purposes only. In the event of conflict between the provision of any such statute, ordinance, or code and these Bylaws, the provision of the statute, ordinance, or code shall in all events control, and no section of these Bylaws shall change or modify any such statute, ordinance, or code.

Section 4. *Interpretation of Sections That Are Based on Provisions from JPA Agreement or Ordinance No. 3716.* In the event of a conflict between these Bylaws and the JPA Agreement or Board of Supervisors Ordinance No. 3716, the Ordinance and Agreement shall in all events control and no section of these Bylaws shall change or modify those instruments.

Section 5. Electronic Signatures. Unless otherwise required by law, the use of electronic, digital or facsimile signatures shall be authorized to conduct Board business.

ARTICLE X

EFFECTIVE DATE

These Bylaws shall take effect immediately upon their adoption by the Board.

Appendix D – MWPA Work Plan Excerpt



Executive Summary

The Marin Wildfire Prevention Authority, consisting of 17 Marin agencies and funded by a voter approved parcel tax (2020 Measure C) is tasked with improving Wildfire Safety for all of Marin residents, businesses and visitors. Recognizing the urgent need and community expectation for swift action, the MWPA Operations Group has developed this Work Plan for Board approval. This plan outlines projects in each of the JPA programmatic areas and outlines a path forward.

Background and Methodology

Northern California and adjoining North Bay counties have experienced the deadliest and most destructive wildfires in its history in 2017 and 2018. Most structures in our county are particularly vulnerable to wildfire threats; and people live in communities that face near-term public safety threats given their location. Certain residents are further vulnerable given factors such as age and lack of mobility. The tragic loss of life and property in the town of Paradise during the recent 2018 Camp Fire further demonstrates such vulnerability.

This MWPA 2020 Work Plan builds upon existing fire protection, prevention, and mitigation efforts, the 2016 Marin Community Wildland Protection Plan (CWPP), 2017 Lessons Learned Report, a 2018 NFPA Report entitled, "Wildfire Risks: 3 Powerful Tips to Move People to Action," the 2018-2019 Marin County Civil Grand Jury Report entitled: Wildfire Preparedness—A New Approach, Fire Safe Marin, and Firewise Neighborhoods across Marin. The MWPA also welcomes review and participation from the Citizen's Advisory Committee, and all stakeholders from the community, including but not limited to the newly formed Ecologically Sound Practices (ESP) group.

Based on community feedback and the immediacy of the wildfire threat to Marin County, the Joint Powers Agreement (JPA) that forms the MWPA specifically allows for an accelerated start. In order to quickly standup the JPA and accomplish critical work, an Operations Sub-Committee was tasked to create a draft work plan based on identified programmatic areas identified in the initiative. Recognizing the need for urgent action, the operation group recommends immediate and medium-term actions to help prevent destructive wildfires. This work plan demonstrates recommendations on priority vegetation fuel reduction projects, evacuation improvements, and public education that can help protect our Marin communities in the short term and place our county on a trajectory away from increasingly destructive fires and toward more a moderate and manageable fire regime.

Using locally developed "areas of concern" and vetted wildfire mitigation projects as a starting point, the operation group identified priority projects and programs to start addressing all the goals of the MWPA. These projects can be implemented almost immediately to protect communities vulnerable to wildfire. The projects are summarized in this plan according to program area, formatted under a worksheets template with descriptions (see table 6 and Appendix C).



It is important to note that Marin faces a backlog of vegetation management work, on both public and privately owned parcels. Thousands of acres are in need of treatment, and this work— once completed— must be repeated over the years to address vegetation life cycles. Also, while fuels treatment such as oak woodland thinning and creation of fire breaks can help reduce fire severity, wind-driven wildfire events that destroy lives and property may very likely still occur. Homeowners should focus on a “house out” approach to reduce hazards and reduce structural ignitability.

The recommendations in this work plan, while significant, are only part of the solution. They reflect the need for work to begin immediately as additional efforts are concurrently pursued. While the work, as outlined in this plan begins with Measure C funds, additional work focused on protecting lives and property through home hardening and other measures will be vigorously pursued by the MWPA and stakeholders at all levels. Marin must adopt an “all of the above” approach to protecting public safety and maintaining the health of our open space and ecosystems.

MWPA Guiding Principals

As a public service agency, dedicated to the safety of our community, agency staff and volunteers, the MWPA has outlined the following as recommended guiding principles and overall operational intent.

- Public Safety and Risk Reduction
- Transparent and effective use of public funds
- Coordination and collaboration among agencies and residents
- Incentivize voluntary compliance through education and support before fines and penalties
- Ecologically sound practices
- Social and environmental equity



Funding and Program Area Overview

Measure C is the financial support for the 17 agency JPA, known as the MWPA. Measure C is expected to raise an estimated \$19.3M annually. Per the initiative's language and MWPA adopted ordinance, it divides the use of these funds into 6 categories or programmatic areas each containing specific bodies of work. The first four categories are known as the **CORE**. There are two additional categories: **Defensible Space Evaluations/Home Hardening** can be shared services or local control; and **Local Wildfire Prevention Mitigation** which is specifically identified for local control; these program areas are identified in table 1. The 17 agencies from across Marin have been grouped into 5 operational boundaries identified in table 2. CORE details are in table 3. Defensible Space Evaluations – Home Hardening details in table 4. Local Wildfire Prevention Mitigation details in table 5. MWPA Program & Project Work Sheet Template table 6. Anticipated funding by agency and category see table 7.

Table 1: Programmatic Areas

PROGRAM AREA	% OF FUNDS
JPA CORE <ul style="list-style-type: none"> • Wildfire Detection, Notification & Evacuation Improvements • Vegetation Management & Fire Hazard Reduction • Grants Management • Public Education 	60%
Defensible Space Evaluations – Home Hardening	20%
Local Wildfire Prevention Mitigation	20%

Table 2: Operational Areas and Map

Agency	Zone
Novato Fire Protection District	Novato
City of San Rafael and Marinwood CSD	San Rafael Area
City of Larkspur, Kentfield Fire District, Sleepy Hollow Fire District, Town of Corte Madera, Town of Fairfax, Town of Ross and Town of San Anselmo	Central
City of Mill Valley and Southern Marin Fire District	South
Bolinas Fire District, County of Marin Fire, Muir Beach CSD, Inverness Fire District and Stinson Beach Fire District	West



The four main programs of the JPA Core have distinct and overlapping goals. The four areas are: 1) detection, notification, and evacuation; 2) vegetation management and fire hazard reduction, 3) grants, and 4) public education, and are listed below with example projects and efforts.

Table 3: CORE area details

	Emphasis	Protect Examples
Detection, notification, evacuation	Wildfire Detection	Detection Cameras, lookouts, linking to satellite systems, aircraft and vehicle patrols
	Notification	Alert Marin, WEA, EAS, NOAA Weather Radios, Sirens, Pulse Point, Hi-Lo Vehicle Sirens, Red Flag Warning Signage
	Evacuation	Evacuation Route Study, Mutual Threat Zone Maps, Parking Boxes, Public Evacuation Maps, Choke Point Reduction, Evacuation Route Signage, Evacuation Drills
Vegetation Management and Fire Hazard Reduction	Physical Projects	Evacuation Route Clearance, Shaded fuel breaks, defensible space work, grazing, fuel breaks, fire road maintenance, broom pulling, invasive plant control, chipper days, fire prone vegetation removal, hazardous tree removal, replanting, example gardens and homes
	Planning Projects	CWPP update, update WUI maps, ordinance updates, compliance protocols
	People and Infrastructure	Fuels Crews, Temporary housing for work crews, vehicles, equipment needs: masticators, chippers, saws, hand tools, project management and supervision, private contractors, volunteers
Grant Management*	Local	Matching or direct needs based to qualifying individuals (seniors, AFN, etc.)
	State	CA Climate Investments Fire Prevention Grant Program, Fire Prevention and Forest Health, Green Waste Bins
	Federal	Hazard Mitigation Grants, Fire Prevention and Safety Grants, FEMA Pre-Disaster mitigation Program
	Private	PG&E, NFPA Firewise, Donations
Public Education**	Stakeholder Collaboration	FPOs, ESP, WMS & Seasonal inspectors, residents, public inquiries, Master Gardeners, FSM
	Print Media	Mass Media, brochures, handouts, mailers, newsletters, op-eds, bi-lingual
	Digital Media	Social media, PSA for movie theaters, Social networking sites, Website
	Trainings	Live webinars, workshops for residents, & professionals, schools, bi-lingual

*Grant Management is in development and requires funding of a grant manager prior to implementation **Firesafe Marin (FSM) has prepared a proposed public education outreach campaign that can be quickly implemented to meet the immediate goals of the MWPA



Table 4: Defensible Space Evaluations & Home Hardening

Defensible Space Evaluations & Home Hardening
<p>Per the JPA agreements, the 17 MWPA agencies have the option to opt into a MWPA shared seasonal defensible space inspector program, or opt out into a locally controlled of Dspace/Home Hardening Evaluation program, or establish a hybrid model. Agencies opting to maintain local control will receive their proportionate amount of the 20% total JPA budgeted to defensible space and home hardening. With the approval of the work plan, agencies will be able to immediately begin implementing or expanding their existing Defensible Space and Home Hardening programs.</p> <p>For the first year, the Defensible Space and Home Hardening programs will be established as follows:</p> <ol style="list-style-type: none"> 1) Novato Fire Protection District 2) City of San Rafael and Marinwood CSD 3) Bolinas Fire District, City of Larkspur, County of Marin Fire, Muir Beach CSD, Inverness Fire District, Kentfield Fire District, Sleepy Hollow Fire District, Stinson Beach Fire District, Town of Corte Madera, Town of Fairfax, Town of Ross, and Town of San Anselmo 4) City of Mill Valley 5) Southern Marin Fire District <p>Abatement Program is under development Funded with 2% of the total tax, the abatement program is currently being developed by the MWPA program. This program will strike a balance between the guiding principles of public safety, equity, and prioritizing education and incentives prior to full enforcement and abatement. Details of the Abatement program will be brought before the Board at a future date. Once approved by the board it will be funded.</p>

Table 5: Local Wildfire Prevention Mitigation

Local Wildfire Prevention Mitigation
<p>The final 20% of Measure C funds are reserved for local jurisdiction control to address unique needs or projects not approved as part of the overall Core function. These projects remain consistent with the purpose of the MWPA and provide a higher level of service than was previously available.</p> <p>Some projects presented as local projects, will likely be considered for CORE projects in future work plans after year one, once they establish a best-practice, serve as a pilot, or otherwise fit the goals of the JPA core with wide benefit (JPA agreement 9.b.).</p> <p>Examples of potential projects include but are not limited to: Ignition Reduction Efforts, Community Wildfire Demonstration Gardens, Community Wildfire Home Hardening Demonstration Props, Electronic Message Boards, Essential Facility Hardening Projects, Fuel Crew Expansion, Additional targeted vegetation management, street widening for choke point reduction, evacuation drills, NOAA Weather Radios, Cost-share programs for resident home hardening for vegetation removal projects, or the expansion and acceleration of any of the other programmatic areas identified within the JPA Core or Defensible Space and Home Hardening.</p>



Implementation Phases

Based on community need and expectations, as well as the variety of MWPA agency needs, a phased approach to project implementation has been established for year one. This work plan includes projects ready to begin implementation as part of Phase 1 as well as projects in progress that can be implemented in phases 2 and 3.

Phase 1 & 2: July 1, 2020 to July 31, 2020

Projects in phases 1 are immediately, or near immediately ready to begin. This includes projects such as public education, mailers, public evacuation maps, chipper days, vegetation reduction and other projects that have been pending funding. These projects have already been vetted through community processes or are directly supported by the establishment of the MWPA, such as Defensible space and home hardening inspections. Phase 1 projects are listed in this plan, with full project worksheets provided in the Appendices. With the acceptance of the Work Plan, the Board is encouraging the projects listed to proceed and demonstrating to the community an immediate return on their investment.

Projects in phase 2 have been prioritized and reviewed locally but may be pending environmental review, community input and/or are waiting for bids and contractors. Some projects are pending the availability of staff to support. These projects are listed in the plan, and full project sheets are included or will be brought to the board for review at a future date. By approving the Work Plan, the Board is telling the individual agencies to continue with their planning process. Project and program updates and outcomes will be brought before the full Board on a regular basis.

Phase 3: Jan 1 to July 31, 2021

Projects and program expenses in phase 3 relate to the capacity building of the MWPA itself. These include purchasing equipment, contemplation of hiring MWPA fuel crews, and completing projects with MWPA staff and equipment. These projects and programs are not directly included in the current work plan and will be brought before the board at a later date.

Appendix E – ESP Partnership Vision Meeting Report

**Marin Wildfire Prevention Authority -
Ecologically Sound Practices Partnership**
Report of Meeting on January 8, 2020
3:30-5:30 pm, Muir Woods Room at MCL offices

Overview

The first meeting of the **Ecologically Sound Practices (ESP) Partnership** took place on January 8, 2020. The ESP Partnership is a collaboration between the fire authorities and climate and environmental organizations of Marin to mitigate the risk of wildfires wisely. The coalition will work as advisors to the fire professionals, defining best practices to guide the implementation of the wildfire prevention plans and offering expertise and recommendations on specific projects.

Over 50 people attended, including fire professionals and members from a broad range of climate and environmental groups, as well as organizations involved in vegetation and green waste management. Supervisor **Katie Rice** gave opening remarks underscoring the importance of this collaborative effort and encouraging all to support the Fire Prevention Measure C on the March ballot. **Lauri Durnell** of Grove Consultants International facilitated the event.

The two hour meeting consisted of presentations, discussion and a participatory exercise that generated a graphic web of concerns and aspirations that will be taken into account to define ecologically sound practices. The following summarizes what was presented and shared.

Context and background

Marin's fire departments have worked together to develop and create the Marin Wildfire Prevention Authority (MWPA) to implement a comprehensive wildfire prevention and emergency preparedness program for Marin County. (See attached ESP Partnership slides for an overview of program goals and funding, JPA Structure, operational zones, and a list of MWPA initiatives that need input from the ESP Partnership.)

On March 3, 2020 Marin residents will vote on ballot Measure C which, if passed, will fund the MWPA. The measure would levy up to 10¢ per building square foot for 10 years to provide approximately \$20 million annually in local funding exclusively for wildfire preparedness and prevention projects.

As the MWPA plan took shape and evolved into the current ballot Measure C, it became evident that the climate and environmental communities have relevant concerns and important contributions to make to this effort. The fire chiefs welcomed the input, and amendments were made to the MWPA resolution reflecting the role climate change plays in the escalating threat of wildfires and the need for expert guidance in implementing the plan with ecologically sound practices. The creation of the ESP Partnership is an outgrowth of this process.

The ESP Partnership provides a forum to:

- provide expertise about ecologically sound best practices;
- bring questions, concerns and solutions to the table;
- coordinate communication with the fire professionals;
- reduce redundancy of efforts;
- develop solutions across areas of expertise.

As Chief Weber said, the MWPA-ESP Partnership marks a new way of working together that can serve as a model for other communities facing climate emergencies.

Who are the ESP Partnership members?

The ESP Partnership was initiated by Fire Chiefs Jason Weber and Bill Tyler, Battalion Chief Christie Neill, FIREsafe Marin (FSM) Coordinator Todd Lando, Organizing for Action Marin's Belle Cole and Meg McCabe, Marin Conservation League's (MCL) Mike Swezy and Larry Minikes, and Sustainable San Rafael's Bill Carney. They formed a Steering Committee to launch the ESP Partnership and will continue to facilitate work moving forward.

The Steering Committee invited people from organizations and agencies recognized for their expertise and involvement in wildfire, climate, and ecologically sound practices. The list consists of renown fire professionals, fire scientists and fire ecologists; climate scientists, planners and advocates; leading specialists in gardens, native plants, pollination, wildlife and ecosystems, watersheds, soil, forests, composting, waste processing and carbon sequestration. (See attached list of invited participants.) There is considerable excitement about the idea of having so much talent and experience in one room (Supervisor Rice) in one Partnership (Chief Weber).

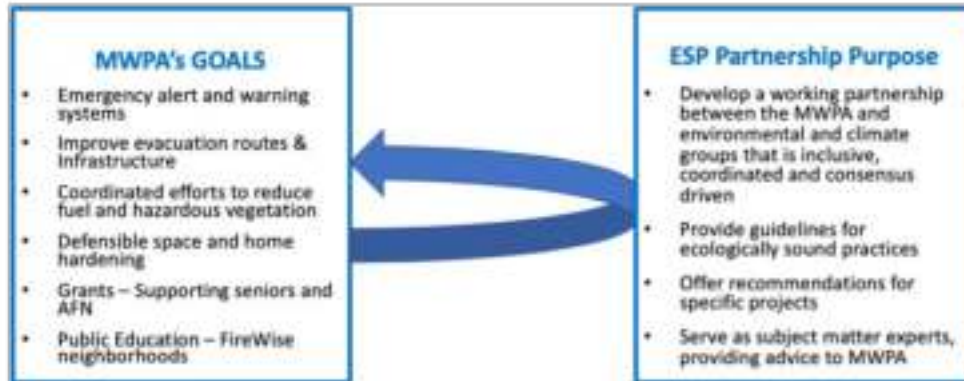
This is an evolving process with the goal of creating a forum that is inclusive, coordinated and consensus driven. Suggestions were made at the meeting (and added as poster notes afterward) to include additional:

- arborists
- landscape architects
- nurseries
- climate change planners
- USDA-Natural Resources Conservation Service expertise

We expect that ESP Partnership membership will grow to reflect a full range of relevant stakeholders committed to this effort.

How will the ESP Partnership work with the MWPA?

1. If Measure C passes on March 3, the Marin Wildfire Prevention Authority will be funded and wildfire prevention plans will go into action. The ESP Partnership will provide expertise and advise to support implementation of the MWPA Goals.



Jason Weber emphasized that even if MWPA does not pass in March, our input will be needed by each fire district who has identified work that has environmental and climate implications.

2. The ESP Partnership will provide expertise and advice within the decision-making structure of the Joint Powers Authority.



3. Members of the ESP Partnership will form workgroups to advise on MWPA priority work organized tentatively around the following:
 - Evacuation routes planning/improvements/clearing along rights-of-way
 - Organic resource management
 - Large fuel reduction projects
 - Defensible space
 - Home hardening
 - Public education
 - Training for landscape professionals, inspectors and evaluators

Meeting participants identified their individual areas of expertise and the priority work areas they are interested in contributing to. This information has been compiled into a database to help form subcommittees and will be expanded upon as the definition of projects and Partnership participation evolves.

- The ESP Partnership will create guidelines for best practices. High priority will be given to actions already underway, such as: 1) improvements to FSM'S restricted and recommended plant list produced by MCL/California Native Plant Society Committee; 2) resolution of green waste disposal (Drawdown project); 3) drafting Ecologically Sound Practices Guidelines (started by OFA and SSR).

Work on these projects will be expanded and will have multiple uses across priority projects.

Aspirations and concerns

The group explored the landscape of aspirations and concerns at the intersection of wildfire prevention and ecologically sound practices. It acknowledged that, while we can build on experience working with land management agencies, new approaches will be required for ecological practices on Marin's private land in the urban core.

Circles of common interest were laid out on a chart and expanded upon by participants who added specifics, drew interconnections among them and improved descriptive language. These covered: public education, habitat, biodiversity, green resource stream, riparian zones, water conservation, healthy soils, carbon sequestration, forest cover, healthy vegetation. Key takeaways: importance of maintenance, high priority of public education, recognition of interconnections, and the significance of moving from land management agencies to neighborhoods. This chart will be circulated to participants requesting their interpretation.



These categories and comments represent a starting point for forming subgroups and advising on MWPA projects. The list of "best practices" that we develop will take into account these concerns (and more). (See attached: MWPA-ESP Partnership Meeting Graphics.ppt)

Next steps

1. We will meet again as a group after March 3, whether Measure C passes or not. Assuming it does, MWPA will lay out priorities again with call for specific actions.
2. Promote passage of Measure C in your networks and throughout our community. Measure C appears on the ballot being published on February 3; so be ready to answer questions about it. Information and campaign materials are available through the Committee for Wildfire Safety website: <https://www.yes4wildfiresafety.org>
3. Create data base of members from handout circulated on January 8. This includes information about those who attended and others on the list who couldn't make the initial meeting (completed).
4. Distribute Partnership List (attached). Please check to make sure your information is correct; let us know if changes are needed.
5. Prepare and distribute Report of January 8 Meeting to Members, summarizing the meeting and take-aways that includes visuals (completed).

Appendix F - Ecologically Sound Practices for Vegetation Management Draft

**ECOLOGICALLY SOUND PRACTICES
FOR VEGETATION MANAGEMENT**



**Marin Wildfire Prevention Authority
ESP Partnership**

May 30, 2021 Final Draft

*This document is under review by fire prevention officers, fire chiefs and Marin Wildfire
Prevention Authority Joint Powers Authority Board of Directors*

02/26/2022

ECOLOGICALLY SOUND PRACTICES FOR REDUCING WILDFIRE RISK IN MARIN COUNTY

Intensifying climate change and extensive fuel build-up are contributing to the increasing threat of wildfire throughout Marin County and, to the extent possible, should be addressed through ecologically sound practices that minimize release of greenhouse gases and protect the biodiversity and resilience of Marin's landscapes . . .

--Joint Powers Agreement, Marin Wildfire Prevention Authority

The Ecologically Sound Practices Partnership (ESP Partnership) is a collaboration of fire agencies and the environmental community in Marin whose purpose is to assist the Marin Wildfire Prevention Authority (MWPA) in delivering its work in an environmentally sound manner.

The ESP Partnership's primary goals are to prepare a set of recommended best practices to guide work and to provide expertise during the development of projects, particularly those related to managing vegetation on wildlands, home landscapes, and other properties. In June 2020, interested parties began working on three areas of focus: vegetation management and habitat protection, carbon resource management, and defensible space for ecological benefit.

Like much of California, Marin is at high risk from increased wildfire, in large part driven by climate change. Our deepening global environmental crisis also includes biodiversity loss and increased drought, flooding, and pollution. The ESP Partnership's recommended practices are intended to produce positive results in meeting these multiple threats at the same time.

The following set of Ecologically Sound Practices have direct value to a number of audiences: MWPA and its partner agency staff and consultants, land managers, public education and landscape professionals, and the residents and property owners of Marin.

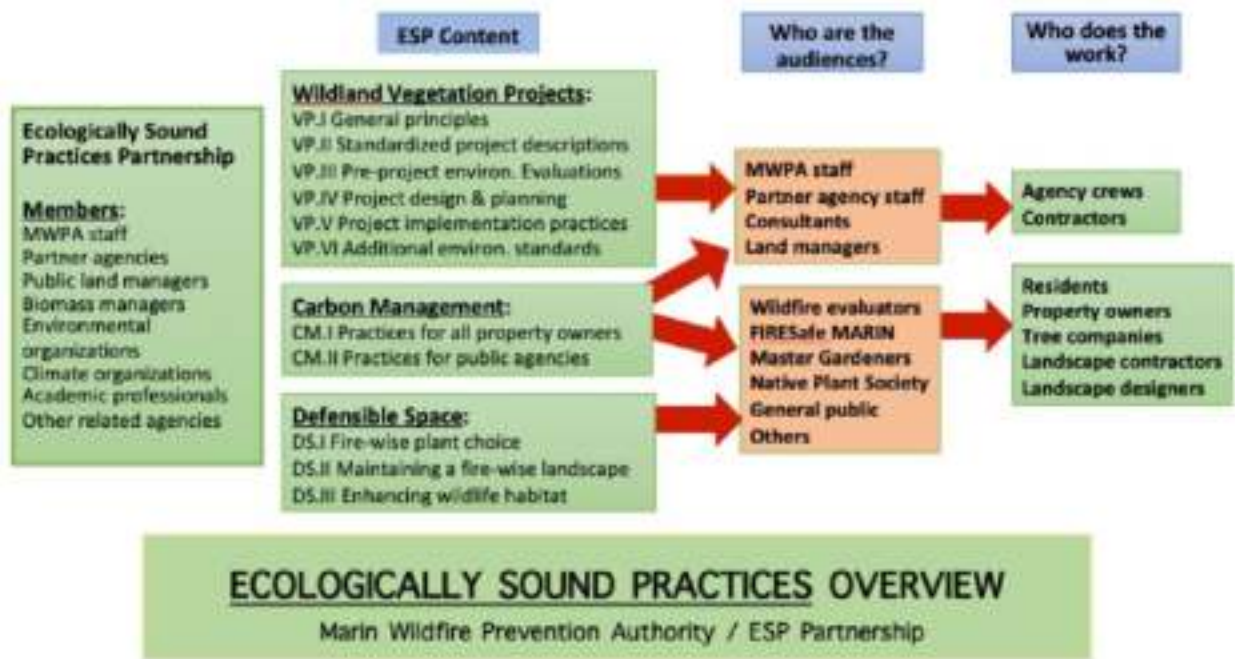
The first section, **Ecologically Sound Practices for Vegetation Treatment Projects in Wildlands**, recognizes that large fires can start in these lands, but also that these areas protect important natural resources and critical habitat. The recommendations strive to improve long term fire protection while taking into account the role that fire has always played on these lands.

The second section, **Ecologically Sound Practices for Carbon Management**, recognizes that actions taken to reduce wildfire risk can also reduce carbon emissions and improve carbon sequestration. Healthy vegetation and healthy soils can pull carbon out of the atmosphere and help counter climate change, and thus ultimately reduce fire danger.

The third section, **Ecologically Sound Practices for Defensible Space**, lists actions that will improve defensible space while also supporting biodiversity, fighting climate change, and reducing pollution.

We present these Ecologically Sound Practices in hopes that they become part of the operational fabric for the work funded through MWPA, so that our communities and our natural lands are both fire adaptive and ecologically sound. MWPA staff, consultants, and legal counsel

will determine how best to incorporate these practices on a project-by-project basis based on environmental analysis conducted for each project, compliance with the California Environmental Quality Act and other state, federal, and local regulations, and consistency with the language of Measure C, which requires that MWPA actions be conducted with the ultimate goal of fire protection and prevention.



Ecologically Sound Practices for Vegetation Management Projects in Wildlands

Marin Wildfire Prevention Authority

Introduction

The MWPA will be funding vegetation management projects on open lands in the wildland urban interface. These projects, such as “fuel breaks” or “fuel reduction zones,” are typically aligned with the perimeter of communities and are intended to reduce wildfire intensity and provide firefighters an increased chance of stopping a wildfire. Projects to improve safety along escape routes also may involve extensive roadside treatments where these recommendations would be applicable. Treatment methods may include the use of hand and power tools, heavy equipment, prescribed burning, and livestock grazing, among others. The following recommendations are provided to support implementation of projects in a way that maintains ecological values to the greatest extent possible.

These guidelines are intended to assist MWPA and fire agency staff or their consultants in developing projects. Sections I and II are general principles or guidelines that provide a framework for managing fuel breaks and reporting project detail. The remaining sections are primarily actions that take place during environmental compliance or California Environmental Quality Act (CEQA) review, project implementation, and post project evaluations.

I. General best management principles

1. Projects should strive to protect the biodiversity and resilience of Marin’s landscape and ensure that ecological values are retained or restored. Ecological values may include protection of special status wildlife and plants, special status plant communities, important wildlife habitats, and native species cover and diversity.
2. To ensure the ongoing efficacy of vegetation management projects developed for fire safety such as fuelbreaks, they should be considered permanent facilities that require long-term maintenance. Monitoring of impacts on natural resources, invasions by exotic plant species, and outcomes as compared to desired conditions should be considered. The MWPA should conduct monitoring as required through the environmental compliance process and to determine appropriate maintenance intervals and activities. As feasible, the MWPA may also work with the implementing agencies, property owners, or other partners to gather data on projects for long-term monitoring, tracking effectiveness of treatments, tracking ecological indicators, and/or informing an adaptive management approach.
3. Project proponents and contractors should have or obtain expertise concerning environmental resources that may exist on or near vegetation management project sites and contractors should be trained regarding best management practices, project design and implementation features, or mitigation requirements of the environmental

compliance documents associated with the project.

4. Vegetation management projects will comply with all CEQA requirements. In all instances, project proponents must provide substantial evidence that the project meets exemption criteria (see section IV below).
5. In support of full transparency and public accountability the MWPA should maintain a web-based project database that provides project detail, current status, long term monitoring needs, and links to CEQA documentation (see section II. below for detail).
6. The burden of periodic maintenance requirements from past vegetation management projects increases over time, even as new projects come on line. To ensure that the MWPA does not exceed its financial or operational capacity to maintain desired conditions in completed projects, annual work plans should include follow-up maintenance.
7. MWPA should also collect data gathered by the implementing agencies, property owners, or partners to the extent feasible that assists with monitoring and maintaining the efficacy of all treatments, including broom removal, grazing, and prescribed burning. (The MWPA should conduct monitoring as required through the environmental compliance process and to determine appropriate maintenance intervals and activities. As feasible, the MWPA may also work with the implementing agencies, property owners, or other partners to gather data on projects for long-term monitoring, tracking effectiveness of treatments, tracking ecological indicators, and/or informing an adaptive management approach.)
8. The recently completed update of Marin's Community Wildfire Prevention Plan provides a framework from which MWPA-funded member agencies can develop plans and programs for treatment projects.

II. Project proponents should provide standardized project descriptions/data for a MWPA Project Tracking Database that includes the following, as applicable and available:

1. physical address where applicable and appropriate
2. project map with standard map conventions (preferably linked to GIS database managed by MarinMap or others or a .kmz file)
3. habitat type/plant community
4. acreage
5. slope & aspect as feasible
6. past treatments or disturbances
7. methods/equipment
8. treatment protocol (spacing, species choices, etc.)
9. timing of work

10. extent of ground disturbance
11. amount of vegetation to be cut (including plant types, sizes and spacing)
12. methods for disposal of vegetation: chipping, masticating in place, lop and scatter, pile burning including technique, or removal (including destination and process for disposal)
13. access routes
14. smoke management plan/permit requirements
15. post-treatment maintenance frequency and intensity (especially for sites with existing invasive plant species or other issues that may require follow-up treatments)
16. links to: survey reports, CEQA compliance documents, notices of exemption, permits unless release of information could present a risk to sensitive biological, cultural, or other resources
17. project status (e.g. planning, implementation, completed, follow-up)
18. before and after project photographs where available and appropriate (per potential privacy concerns)

III. Pre-project environmental evaluations

Where applicable, habitat assessments for WUI and wildland vegetation management projects should be conducted by qualified professionals before and after site treatments. Minimum qualifications for biological professionals are set forth in Section 3.6.3 of the Final Program EIR for the California Vegetation Treatment Program, page 3.6-117. Assessments can include a desktop analysis and field surveys, where needed, depending on site conditions, activities proposed, and potential for sensitive species to be present and cover the following, as appropriate:

1. invasive plants
2. special status plants and wildlife
3. sensitive habitats/natural communities, such as oak woodlands, bay forests, coastal scrub, chaparral, perennial grasslands, bishop pine woodlands, and areas of serpentine soils
4. watercourses, wetlands, riparian corridors and aquatic habitats
5. wildlife nursery sites or habitat (including bird nests and burrows)
6. Northern spotted owl habitat
7. slope stability/erosion

IV. Project design and planning best practices

1. Describe desired habitat conditions.
2. Identify potential impacts on natural resources in the project area.

3. Design projects to avoid or reduce adverse impacts on special status species and sensitive natural communities to the extent feasible.
4. Design projects with consideration for maintaining or improving native plant diversity and wildlife habitat to the extent feasible, and in the context of wildfire resiliency, as many native plants, such as bunch grasses, carry fire less effectively across a landscape than non-native invasive plants, such as non-native annual grasses.
5. Design projects with consideration for maintaining or increasing native plant cover to the extent feasible.
6. Follow a “house out” approach that prioritizes fire risk reduction strategies in and around communities ahead of fuel breaks in remote wildlands.
7. To the extent feasible, within shaded fuel breaks, keep canopy trees, keep a portion of native understory, keep a portion of large down wood and snags that provide wildlife habitat, incorporate refugia into the design, and target non-native vegetation in order to achieve desired habitat objectives where compatible with achieving fire fuel management objectives.
8. Give priority to removal of fire-hazardous non-native trees, e.g., eucalyptus, acacia, Monterey pines where compatible with achieving fire fuel management objectives.
9. Include erosion and sediment control measures, as needed, that limit discharge and protect downstream aquatic resources. Minimize soil disturbance and compaction to the extent feasible.
10. Consistent with CALFIRE Vegetation Treatment Plan (VTP), timing and duration of grazing should be designed to protect and promote native plants. To the extent feasible, herbivory should be prescribed to avoid significant erosion and sedimentation.

V. Best practices for implementation of vegetation management projects

1. When feasible, design projects to avoid adversely affecting wetlands, riparian habitats, stream conservation areas, and stream banks, and establish buffer areas in accordance with VTP guidelines or other applicable agency vegetation management plans. Obtain appropriate permits if a project is to affect regulated waters or habitats.
2. Design projects to avoid adversely affecting nesting birds. For projects that may adversely affect nesting birds, avoid work in bird nesting season; however, if not feasible, conduct timely surveys (within 1 week of work) and provide buffers around active nests or monitor the nest to ensure no disturbance. Alternatively, wait until young have

fledged.

3. Protect special status plants and wildlife with visibly marked buffers and/or avoidance, where required, in accordance with VTP guidelines or project design features (for projects not falling within the VTP), or other applicable agency vegetation management plans.
4. Take steps to maintain, or potentially and preferably increase, as feasible, the proportion of native plant species compared to non-native invasive plant species.
5. Take steps to prevent or reduce reinvasion of non-native, invasive plant species during and following project implementation to the extent feasible. When removing invasive plants, use Integrated Pest Management treatments. Implement Early Detection Rapid Response methods, as appropriate and feasible, on sites vulnerable to invasion by new species.
6. Endeavor to protect northern spotted owl habitat and avoid adverse impacts on wood rats. (Replace with: Endeavor to protect northern spotted owl habitat and improve its resilience to fire and avoid adverse impacts to wood rats.)
7. Implement long-term monitoring by appropriate parties, as necessary and appropriate for fire prevention.

VI. Comply with additional environmental standards of practice

In addition to the practices listed above, as and where applicable, project proponents should implement the best management practices, mitigation measures and standard treatment requirements set forth in [Section 3.6.3 of the Program EIR for the CALFIRE VTP \(entitled Impact Analysis and Mitigation Measures\)](#). (Project-specific guidance for biological resources, including relevant databases, can be found in Appendix B.) Where applicable, the practices and mitigation measures set forth in vegetation treatment/management plans developed by California State Parks, the National Park Service, CAL FIRE (e.g., Forest Practice Rules), or Marin agencies should be considered.

Ecologically Sound Practices for Carbon Management

Marin Wildfire Prevention Authority

A fundamental way to reduce the threat of wildfire is to reduce the greenhouse gases that are causing climate change to intensify. Lowering fuel loads can help prevent the release of large amounts of carbon dioxide from catastrophic wildfire. Reusing the carbon contained in vegetation cuttings for productive purposes, like mulch, energy, and wood products can further reduce greenhouse gas emissions. And maintaining and enhancing the health of Marin’s diverse landscape can enable it to keep drawing down carbon out of the atmosphere. These carbon management practices apply to every scale of landscape, from large open space to single yards. They are addressed to individual property owners, supplementing Defensible Space practices, with a separate section addressing additional concerns of public agencies managing larger properties and projects.

I. Carbon Management Practices for all Property Owners

A. Maintain healthy plants and ecosystems for optimal carbon capture and sequestration

1. Follow pruning, water management, soil health, habitat enhancement, and other maintenance practices that sustain healthy vegetation while reducing wildfire risk.
 - i. See associated ESP for ‘Wildland Vegetation Projects’ and ‘Defensible Space’
 - ii. See [‘Maintain Your Fire-smart Garden’ at UC Marin Master Gardeners](#)

B. Maintain an extensive tree canopy

1. Protect and promote the health of large trees (except for designated fire-hazardous trees) and mature forests. The trunks of large trees ignite less readily than smaller vegetation while sequestering large amounts of carbon for long periods of time. Large trees also build healthy, carbon-rich soil by actively returning nutrients to the ground.
2. Where needed to protect structures or other improvements, create ‘shaded fuel breaks’ by reducing fuel at ground level while maintaining a healthy canopy. Decrease the ‘laddering’ of fire into the canopy in such areas by removing lower branches per guidance from CALFIRE, local fire agencies, project biologists, foresters, and/or other experts, as appropriate. .
3. In defensible spaces, space trees to reduce competition and provide growing conditions allowing each tree to reach full size without crowding other trees or structures, thereby reducing future pruning and slowing the spread of fire. (A few large trees sequester more carbon, with less fire hazard, than an overcrowded stand of smaller trees.)
4. Locate and maintain trees where they can cool buildings, minimize heat islands, reduce runoff, and help maintain groundwater and atmospheric moisture.

5. Prioritize planting and maintenance of larger 'high sequestration' trees, where feasible and ecologically appropriate.
 - i. See 'large trees' list at [CA Native Plant Society Marin Chapter](#)
 - ii. [Also see San Rafael Street Trees \(4' planter size and larger\) list](#)
 - iii. [The Firesafe Marin 'Fire Smart' tree list includes a few additional large species](#)
 - iv. [Some top sequestration trees are at Drawdown Marin 'Carbon Capture'](#) (slides 9 & 10):
 - v. [You can calculate the carbon sequestered by a given species at i-tree](#)
 - vi. See '[Considerations for Choosing Plants](#)' at [UC Marin Master Gardeners](#)

C. Protect and enhance native plant communities

1. Reduce fuel loads to levels typical of Marin's fire-tolerant native plant communities subject to natural fire return intervals.
2. When reducing fuel loads, focus first on dead or diseased vegetation and on removing/reducing non-native invasive and highly flammable species, timing work to limit the spread of their seeds.
3. Re-plant with fire-tolerant and fire-resilient native species adapted to site conditions.
 - i. See '[plant replacement lists](#)' for '[fire-smart](#)' native trees, grasses, groundcovers, and shrubs at [Ca. Native Plant Society Marin Chapter](#)

D. Maintain healthy soil able to absorb and store carbon

1. Where feasible, maintain trees and groundcover, and use mulch, jute geotextile material, erosion catchment wattles that biodegrade over time, or other practices to protect soil from erosion and runoff. Plant and maintain deep-rooted perennial native grasses.
2. Where feasible, avoid chemical pesticides and fertilizers that are often derived from fossil fuels and can cause the release of nitrous oxide, a potent greenhouse gas; use natural means instead (e.g., attracting birds and other insect predators, applying compost). If member agencies determine that pesticides are required to meet project objectives, ensure that Integrated Pest Management practices be incorporated into the project.
3. To the extent feasible, minimize disturbance and compaction of soil from equipment or grazing.
4. Encourage retention, spread, and continuity of mycelia and other constituents of the soil biome to support healthy roots and vegetation.
5. Use compost and composted mulch to help maintain soil cover, soil moisture, fertility, and carbon in defensible spaces and working landscapes.

- i. Purchase compost and mulch derived from Marin green cart yard & kitchen trimmings at local suppliers such as [Redwood Landfill](#) and [West Marin Compost](#)
- ii. See more on [mulch at Firesafe Marin](#)
- iii. See '[Putting Carbon Back in Your Soil](#)' at [UC Marin Master Gardeners](#)
- iv. Track [biomass from truck or green cart to organic compost at Redwood Landfill](#)
- v. [Marin Sanitary Service green cart information](#)
- vi. [Marin Carbon Farms convert compost to food & sequestration](#)

E. Choose ways to dispose of cuttings that reduce greenhouse gases or increase sequestration

1. Use a chipper and spread chips as mulch, where appropriate and with consideration for wildfire hazard (avoid excess chips more than a few inches deep in native ecosystems).
2. Use curbside green bins and consider home composting.
3. Utilize and encourage the development of low-GHG biomass disposal options in Marin. Ask your hauler if cuttings can be directed to one or more of the following products, and support resource recovery infrastructure that expands available options:
 - a) Compost & mulch – maintains soil moisture, fertility, sequestration
 - b) Biochar – sequesters carbon long-term, retains soil moisture
 - i. [Biochar basics at Carbo Culture](#)
 - c) Anaerobic digestion (wet or dry) for electricity, fertilizer
 - i. [Track landfill gas to electricity at Redwood Landfill](#)
 - ii. [Marin Sanitary Service commercial 'food to energy' conversion](#)
 - d) Gasification/pyrolysis for electricity, biochar, hydrogen (potential Marin pilot)
 - e) Combustion for electricity (potential Marin pilot)
 - f) Wood products—sequester carbon for product's life (potential Marin pilot)

II. Additional Carbon Management Practices for Public Agencies

A. Reduce fire threats to the Marin landscape

1. Manage vegetation to avoid the release of large amounts of carbon dioxide from catastrophic wildfire on Marin's landscapes, which currently sequester about 25% of Marin's greenhouse gas emissions every year.

- i. [View Marin Community Wildfire Prevention Plan](#)
- 2. Continue to monitor countywide vegetation maps to identify ‘carbon sinks’ and develop practices that maintain, enhance, and track their health and extent.
 - i. View [One Tam Marin Vegetation Map project](#)
- 3. Follow local tree ordinances, urban forestry programs, and climate action plans.

B. Manage biomass for low greenhouse gas emissions and high sequestration

- 1. Minimize GHG release during vegetation management and disposal, including from sources such as saws, chippers, transportation, and processing where feasible.
- 2. Determine and use lowest-emission/highest sequestration methods of biomass disposal, where feasible, including onsite practices such as:
 - a) Chipping or ‘masticating’ and broadcasting (while avoiding build-up of chips and other biomass that could harm native ecosystems or increase wildfire risk).
 - b) Lopping and reuse of material (e.g., to cover old trails or enhance habitat).
 - c) Controlled burns – prescribed burns, ‘conservation’ pile burns, ‘air curtain burners’ to reduce emissions, ‘carbonator’ or ‘flame-cap kilns’ for biochar.
 - i. [Onsite way to produce biochar & reduce emissions](#)
 - ii. [Community prescribed burns](#)
 - d) Grazing – employ livestock and practices that increase the health of plants (see VT.IV.10. above for more on grazing practices)
 - i. [‘Match.Graze’ onsite options](#)
- 3. Support low-GHG uses and processes for vegetation disposed offsite, such as compost, biochar, electricity generation, and wood products (see CM.I.E.3 above).
- 4. Optimize carbon sequestration and minimize GHG emissions at all stages of management, with the goal of balancing the emissions from management activities with the carbon sequestered.
 - i. [Marin Biomass Recovery Study](#)
 - ii. [California Biomass Collaborative overview of biomass & GHG goals](#)
 - iii. [Drawdown Marin GHG emission reduction & sequestration strategies](#)

C. Provide fire-wise and climate-smart public educational materials & presentations

1. Prioritize hardening structures & safe evacuation in disaster preparedness materials.
 - i. See more on home hardening: <https://www.firesafemarin.org/home-hardening>
2. Emphasize ecologically sound practices for vegetation management.
 - i. Also see [‘Earth-Friendly Gardening’ at UC Marin Master Gardens](#):
 - ii. See [‘The Climate-Friendly Gardener’](#)
3. Include ecologically sound disposal practices for vegetation removed.
4. Provide workforce training and public education on maintenance practices, including their carbon management and benefit for climate change.

Ecologically Sound Practices for Defensible Space, Guidance for Residents

Defensible Space is needed to reduce the intensity of wildfires as they approach homes or other structures, and reduce the likelihood that vegetation near buildings will ignite from embers. Defensible space creates a safer place for firefighters to operate and for residents to evacuate. Defensible space may also reduce the likelihood that a structural fire will spread to neighboring homes or wildlands.

Defensible space landscapes also can play an important role in combating climate change and maintaining a biodiverse and sustainable environment. Increased public outreach, expanded home and property inspections, and more frequent enforcement of wildfire ordinances offer the opportunity to transform under-managed properties into fire smart, water wise, biodiverse, and climate friendly landscapes throughout Marin. These Ecologically Sound Practices for Defensible Space provide guidance for making landscapes more sustainable and biodiverse by emphasizing maintenance practices and design modifications that reduce fire intensity, removing fire prone plants, and using native and other plants needed for bees, butterflies, birds, and other wildlife to thrive.

The intended audience for these practices is ultimately the individual residents or property owners who are responsible for designing and maintaining their defensible space. In addition, these practices are intended to inform and assist the development of educational and training materials by organizations who deliver information to residents and landscape professionals, such as FIREsafe Marin, UCCE Master Gardeners, California Native Plant Society, and fire service home inspectors as well as potential certification programs for fire agency inspectors.

I. Plant choice

When designing and managing landscaping around the home, residents should focus on geographically appropriate California native plants and low-water-use plants that thrive in a Mediterranean climate and are easy to maintain.

1. Grow 'the right plant in the right place' for microclimate and garden conditions.
2. Choose plants that store water in leaves and stems, do not produce excessive dead, dry, or fine debris, maintain high moisture content with limited watering, require little maintenance, and contribute to the ecological health of the surrounding area.
3. See the ['how to choose plants'](#) page of the UC Marin Master Gardeners website.
4. See the ['fire smart landscaping'](#) page of the Marin chapter of the California Native Plant Society for a list of native plants to replace plants considered fire-hazardous by Marin fire authorities. These native plants can serve similar functions in the garden as those

fire-hazardous species.

5. See the Fire Safe Marin and UC Marin Master Gardeners websites for additional resources as they are developed.
6. Choose plants that attract pollinators, support songbirds, foster biological pest control, and reduce the need for pesticides.
7. When designing a garden for new plantings, generally space shrubs so they will be 3-5ft apart at maturity. Avoid or reduce situations where shrubs are under tree canopies. Space shrubs and trees for easy maintenance, with increased spacing on slopes. See [CA Public Resources Code 4291](#).
8. Do not introduce invasive plants and remove existing ones.
9. Prune and thin for plant health and vegetative fuel reduction.

II. Maintenance

A. Clean up – Start with the house and work out

Prior to fire season, residents should assess their yard and home landscape for flammable materials. See Marin Master Gardeners '[firesmart landscaping maintenance](#).'

1. Remove dead or dry leaves and pine needles from your roof and rain gutters, and within 5ft of structures. Repeat regularly during fire season.
2. Prune branches that overhang any roofs or deck.
3. Remove combustible material on or under decks, overhangs and fences.
4. Do not allow construction materials, recreational equipment, or other debris to accumulate next to structures.
5. Move wood piles at least 30 feet from any structure.
6. Keep propane tanks clear of debris and set 30 feet away from structures.

B. Mulch and Compost

Soil that retains moisture keeps plants greener and less flammable. The higher the soil's carbon content, the more water it can absorb. Add compost and composted mulch where needed to help retain soil moisture, fertility, and carbon and to encourage mycelia and other constituents of the soil biome that support healthy vegetation.

1. Use permeable, noncombustible (inorganic) mulch materials 0-5' around the perimeter of any structure and to create fuel breaks throughout the property. If planting within the 0-5ft zone, succulent or high water content plants are suitable.
2. Use compost or composted mulch beyond 5 feet, to hold moisture and eliminate weeds, while leaving some bare soil for ground nesting bees.
3. Limit the depth of wood chips or other organic mulch to 3 inches.
4. Separate large composted wood chip areas with paths or non-flammable materials such as gravel, rocks, decomposed granite or stones to break up continuity of flammable materials on the landscape.
5. Where hardscape is required, use permeable materials to allow rainwater to percolate below ground, reducing run-off and erosion.
6. Secure mulch, compost, and biochar (which also helps retain soil moisture) from local suppliers like West Marin Compost and Redwood Landfill.

C. Water Management

Be water-wise. Design landscapes and irrigation systems to work together. Use drip or low-flow overhead spray irrigation where appropriate and adjust the schedule to irrigate deeply and less frequently to keep your plants appropriately hydrated throughout the year.

1. Group and irrigate plants according to their watering needs. Watering more than necessary can encourage quick and excessive plant growth, increasing the fuel load, or cause root rot that results in increased flammability.
2. Maintain irrigation systems to avoid leaks, ensure proper plant hydration, and avoid runoff into streets, walkways, and storm drains.
3. Irrigate as normal on Red Flag Days. Overwatering depletes the water our fire departments need and does not help plants resist embers or heat from fire.
4. Practice rainwater catchment and retain storm water on site.

D. Erosion and Steep Slopes

To slow runoff, residents should consider maintaining plant cover and using strategically located berms, swales and rain gardens, as well as water-permeable surfaces.

1. Leave in place or restore enough vegetation and roots to maintain a stable slope and prevent erosion. Preferably, use deep-rooted native plants.

2. When vegetation is removed from steep slopes, erosion control measures should be added to reduce runoff, improve infiltration, and recharge groundwater.
3. Include jute geotextile material and erosion catchment wattles that will biodegrade over time. See Marin Master Gardeners '[preventing erosion](#).'

E. Pruning, Thinning, and Mowing

Residents should cut out dead, dried, and diseased wood to increase space between plant groupings and tree branches while being sensitive to nesting birds, wood rats or other wildlife habitats.

1. Monitor plant height and prune lower vegetation to reduce the risk of fire spreading into tree canopies.
2. Regularly prune woody, twiggy or overgrown shrubs to remove accumulated dry material and remove dead wood.
3. Cut back vines and groundcovers to remove build-up of dry stems and dead leaves.
4. Prune lower tree limbs away from understory vegetation that would allow fire to move from the ground to the upper portion of the tree. Remove climbing vines from trees.
5. Gently thin tree canopies to remove deadwood and twiggy growth and maintain separation between trees. Avoid topping trees.
6. Mow annual grasses and weeds to about 4-6 inches tall, or follow requirements offset forth in local fire codes. Mow before 10 am and not on hot or windy days.
7. Prior to mowing, inspect for invertebrates or other wildlife.
8. Use hand pulling or string trimmers (vs. lawnmowers) for clearing weeds, grasses, or other fine vegetation.

F. Tree and Plant Care

Residents should prune at the right time of the year; fall and winter are best to remove excess growth and dead wood. Avoid pruning in the spring or summer to discourage the spread of disease and prevent excess growth of certain species.

1. Remove tree branches within 6-10 feet of the ground or up to $\frac{1}{3}$ the height of the tree, whichever is less, to mimic the conditions in a healthy forest or current guidance set forth in local and local fire codes (see DS.III.A.4 below)

2. Leave the branch collar when making flush cuts to reduce injury to the tree.
3. The space between an understory shrub and the lowest branch of a tree should be 3 times the height of the understory shrub.
4. Remove the portion of a tree that extends within 10 feet of the outlet of a chimney or stovepipe. See [CA Public Resources Code 4291 \(a\)\(2\)](#).
5. Avoid planting trees under power lines to prevent having to remove them later. Pre-existing trees and shrubs under power lines should be pruned to prevent contact with the lines. When planting near power lines, choose fire-resistant species, favoring natives where possible. See [PG&E's 'Right Tree, Right Place' guidelines](#).
6. Trees should only be removed if dead or advised to do so by inspectors because they pose a fire hazard.

G. Climate Change

Climate change is a major factor contributing to increased wildfires in Marin. See the Carbon Management Section of these Ecologically Sound Practices for more ways to reduce it.

1. As temperatures increase, keep plants hydrated during heat events, and frequently monitor. Thriving plants are more resistant to embers and radiant heat from wildfire.
2. Choose electric or battery powered gardening tools over gas powered.
3. A primary goal of all fuel treatments, including the maintenance of defensible space, is to reduce fire intensity and encourage healthy plants. Such treatments generally release less carbon, restore vital soil nutrients, and encourage healthy forests and new growth that maximizes long-term carbon sequestration.
4. Consider household energy efficiency improvements and other steps to reduce the greenhouse gas emissions that are driving climate change and intensifying wildfires. For comprehensive climate mitigation and adaptation actions, see [Resilient Neighborhoods](#).

H. Home Hardening

Hardening the home to resist ignition is important since buildings are often more vulnerable than surrounding vegetation. Strategies include installing ignition resistant roofing, retrofitting ember resistant screens over vents, enclosing eaves, closing in the open space under decks, separating wooden fences and gates from the house, and installing ignition resistant siding. See Firesafe Marin '[harden your home](#)'.

III. Wildlife habitat

Residents should consider coordinating with neighboring Firewise USA sites to create fire-resilient wildlife habitat corridors; provide drinking water and plants suitable for wildlife diets; limit the use of pesticides, herbicides, and chemical fertilizers; and reduce the likelihood of habitat destruction from high intensity wildfires. Our landscapes are shared with a host of other living creatures. Each decision we make also affects them.

A. Structural habitat

A well maintained defensible space can create or enhance structural habitat for wildlife use, often including an open understory canopy ideal for foraging bats, raptors, and owls.

1. Leave dusky-footed wood rat nests intact. Dusky-footed wood rats are an important food source for raptors. Multiple generations use these 'pile of sticks' homes.
2. Consider installing bat, owl, and bird nest boxes 10-15ft above ground and away from buildings. Boxes require annual cleaning.
3. Space plants for wildlife shelter; clear dead leaf litter under shrubs less than 5ft high.
4. Dead branches, limbs close to the ground, and logs serve as wildlife habitat. Small areas of such material may be left in place beyond the 30ft zone around structures.

B. Food/ Forage

Encourage plants that serve as perennial food sources for pollinators, insects and small mammals. The most suitable food sources are native plants with which wildlife has co-evolved. See [Marin Master Gardeners plant lists](#).

1. Plant native nectar plants for pollinators and native trees and shrubs that produce berries for songbirds and mammals. Remove invasive vines that reduce nesting habitat for songbirds.
2. If one cannot plant natives, best practice is to plant non-invasive Mediterranean drought-tolerant plants that are not designated fire-hazardous.

C. Sources of Water

Provide summer water sources for butterflies, birds and mammals.

1. Encourage the use of non-chlorinated ponds and birdbaths.
2. Keep swimming pools and water troughs covered when not in use or build wildlife escape ramps.

D. Bare Ground

Bare ground is beneficial for ground nesting insects and sun basking for reptiles such as lizards and snakes.

1. Maintain ample areas of bare ground within the zone 0-5ft from the house and integrate strategically throughout the landscape.

E. Decomposers

Slow, spread, and sink rainwater to support nematodes, fungal network, and nutrient cycling.

1. Wet months in Mediterranean climates are the most valuable time for rainfall to slowly move through soil profile. This allows decomposers to cycle nutrients, and for mycorrhizae and nematodes to build up soil.
2. Outside the 0-5ft zone, leave dead leaves on the ground in the winter to encourage decomposers.
3. Use composted mulch where feasible in the 5ft- 30ft zone, to a depth of about 3 inches, to keep roots moist in the summer months, as well as provide habitat for soil organisms and other wildlife.
4. Beyond the 30ft zone, leaf material and dead branches are encouraged to a maximum depth of 3" to reduce evapotranspiration and enhance habitat in the top soil horizon.

F. Bird Nesting Season

Marin County is part of a migratory bird flyway, and many birds nest here. Reduce impacts to bird nesting and foraging.

1. Inspect for the presence of nesting birds prior to performing vegetation work, avoid removing vegetation containing active nests (containing eggs or nestlings) until the chicks have fledged and left the area, and when possible, perform work outside of bird nesting season.
2. When cutting grass in the spring and summer months (as required to reduce flammable fine fuels) inspect the area first for ground nesting birds, reptiles, and mammals.
3. Remove dead branches and prune trees adjacent to structures in the winter whenever possible. Winter work is less likely to disturb nests and reduces the maintenance required during fire season.

IV. General Resources:

1. [Ecologically Sound Practices Partnership \(ESP\)](#)
2. [University of California Marin Master Gardeners \(MMG\)](#)
3. [University of California Integrated Pest Management \(UCIPM\)](#)
4. [FIRESafe Marin \(FSM\)](#)
5. [California Native Plant Society & CalScape \(CNPS\)](#)
6. [Marin Municipal Water District \(MMWD\) Watershed Approach to Landscaping](#)
7. [Marin Audubon Society](#)
8. [University of California Climate Wise Gardening](#)
9. [University of California Tree Care and Management](#)
10. [PG&E planting considerations](#)
11. [CalPoly SelecTree](#)
12. [California Invasive Plant Council \(CalIPC\)](#)
13. [Ecological Artisans](#) Effective Erosion Control: Straw Wattle

V. Wildlife Resources:

1. [International Bat Conservation Biologist](#) – Bethany Shultz
2. [Xerces Society List of habitat guide for pollinators](#) –
3. [Bruns Lab- Point Reyes Vision Fire- study-](#) UC Berkeley lab that study mycological community. [Reference to be confirmed.]
4. SF Mycological group - grow mushrooms in your garden - Ken Lenshfield
5. [Marin Native Plant Society - Replacement plant list](#)
6. [Habitat Structure in Montane Forests](#) –US Forest Service
7. Point Reyes National Seashore Wildlife and Bird Biologist – Dave Press
8. Water Wise - Greg Ruben - micro sprinklers (drip saturates the drip zone). Landscaper in S. California
9. [Marin Municipal Water District – Watershed Approach to Landscaping](#)
10. [Marin Beekeepers](#) – Bonnie Morse

Appendix G – Lessons Learned Report



Lessons Learned 2017 North Bay Fire Siege September 2018

Prepared By:
Marin County Fire Department
P.O. Box 518, Woodacre, CA 94973
www.marincountyfire.org





Contents:

Previous Steps in Fire Preparedness	3
Board of Supervisors Takes Action	6
Scope of Sub-Committee	8
Panel Interview (North Bay Officials)	8
Public Listening Session / Community Forum	11
Suggested Areas for Improvement	12
Next Steps / Recommendations	18
Contact Information	20



The devastating wildfires of the October 2017 North Bay Fire Siege left nearby communities frightened and highlighted the necessity for fire prevention and preparedness. When the fires started on October 8th, the only thing separating Marin County from their neighbors to the north was simply an ignition source. Subsequent community conversations regarding wildfire preparedness have highlighted the need to update Marin communities on preparation that is already underway as well as plans that local government has developed to prepare further.

In November 2017, the Marin County Board of Supervisors created a sub-committee to study lessons learned from the North Bay Fires. The sub-committee included Supervisors Judy Arnold and Dennis Rodoni, leaders from fire, law enforcement, and land management agencies, as well as representatives from Marin's cities and towns. The public was also invited to voice concerns and hear from the agencies represented. The sub-committee proceeded in three steps: first, the sub-committee held an extensive panel interview with Sonoma officials in order to learn from their experiences. Next, the sub-committee hosted a public forum in an effort to gather community input and preferences. Finally, the sub-committee took an inventory of Marin's existing programs, identifying gaps within and across agencies. The inventory also identified several recommendations from Sonoma and Napa officials which were already in place in Marin County, including a tradition of robust relationships between agencies and a willingness to work together. The constructive nature of the sub-committee's dialogue with various stakeholders illustrates that Marin County agencies and the public are committed to working together to increase disaster preparedness.

This report outlines the main findings from this process and areas for improvements to further decrease the County's vulnerability and increase fire preparedness. These improvements befall the County of Marin, cities and towns and their respective fire, land management and law enforcement agencies, as well as members of the public.

While this sub-committee was at work, the Marin County Board of Supervisors approved a \$500,000 set-aside for disaster preparedness as part the FY 2018-20 Budget. Some of the improvements outlined in this report have already been implemented, others will be funded upon adoption of this report, while others require further exploration and refinement to be actionable.

Previous Steps in Fire Preparedness

Marin and California have taken significant steps over many years to prepare for wildfires, including changes to building and planning codes and regulations; investments in equipment, staffing and training; the creation of various work groups across industries to leverage knowledge, resources and outreach, and boost participation in existing statewide programs; the

creation of strategic plans utilizing current technology, including plans for best practices in emergency alert systems. The following provides a brief historical overview of fire preparedness in Marin County.

After the 1991 Tunnel Fire in the Oakland-Berkeley Hills, Marin established one of the first Fire Safe Councils (FIRESafe MARIN), which brought together residents along with fire, utilities, and land management agencies to address fire prevention and preparedness. In recent years, FIRESafe MARIN has obtained millions of dollars in grant funding aimed at reducing fire risks while increasing community collaboration around fire preparedness.



In October 1995, the Mount Vision Fire burned 12,354 acres on the Point Reyes National Seashore. Fire agencies throughout Marin improved wildland fire response capabilities by investing in equipment, apparatus and training. Agencies also recognized the importance of the Statewide Mutual Aid System and began participating at a greater level.

The 1996 California Fire Plan (still current) was adopted with the intention of creating a more wildfire resistant and resilient California. In late August, the [2018 California Fire Plan](#) was published. Marin County's Community Wildfire Protection Plan is one of many plans across the state that provides local input to this statewide plan.

In October and November 2003, the Cedar Fire burned 273,246 acres in San Diego County, the largest wildfire ever recorded in California at that time. Novato Fire District Firefighter Steven Rucker was killed in that fire protecting lives, homes, and property in Southern California. As a result, The Governor's Blue Ribbon Fire Commission was established to conduct a review of the efforts to fight the October 2003 wildfires and present recommendations to decrease California's vulnerability in the future. Included among other recommendations were local building, planning and land use regulations as well as brush clearance and fuel modification recommendations. The State Fire Marshal at that time, John Tenant, concluded that California needed to develop a code that would address building construction methodology for all structures located in or near a designated wildland area. The Office of the State Fire Marshal conducted fire research including development of fire test protocols for ignition resistant construction.

As a result, Marin fire agencies worked together and reviewed the International Code Council's (ICC) Wildland-Urban Interface (WUI) Code which incorporates building standards, as well as fire code provisions such as access, defensible space/vegetation management, and firefighting water

supply requirements on the other. Several jurisdictions have adopted and amended either the 2003 or 2006 ICC Urban-Wildland Interface Code. As a result of this work, the existing built environment is more resistive to fire, structural ignitability is decreased, and defensible space is improved.

Since 2003, further efforts have included statewide risk mapping, creation of Community Wildfire Protection Plans, adoption of local Wildland Urban Interface Zones, and further updating of building codes to improve construction techniques and vegetation management and access/egress requirements.

In 2005, Marin County Fire created a twelve-person Fuel Reduction & Fire Crew to further vegetation management efforts and to bolster the County's initial fire response. Daily work of the crew consists of fire hazard reduction, vegetation removal, pile burning, chipping, and supporting land management agencies. Four mountain top fire detection cameras were installed in 2014, improving fire detection and visual monitoring of remote wildland fires. In 2016, the County Board of



Supervisors adopted the [Community Wildfire Protection Plan](#). This plan was developed by stakeholders on a collaborative basis and utilized the best science and technology available to evaluate and prioritize fire hazard and risk relative to population and property, infrastructure, and natural resources.

Considerable effort by Marin's fire and law commanders went into the establishment of pre-designated community evacuation zones throughout Marin. These zones allow fire and law to



immediately identify the areas needing evacuation during wildfires. Once selected, the Office of Emergency Services can send pre-developed messages to these zones in the form of evacuation warnings or orders. Residents should register with [AlertMarin](#) to receive these important alerts.

Today there are thirteen nationally recognized [FIREWISE USA](#) neighborhoods in Marin. The FIREWISE program brings local fire agencies and neighborhoods together through collaboration and ultimately improves the resiliency of Marin's

communities. Annually, Marin fire agencies conduct thousands of defensible space inspections of properties. During these inspections, hazards are identified, and residents are directed to take specific actions that will increase the likelihood that their homes and neighborhoods would be defensible, and survive a wildfire.

The impacts of a changing world and climate have dramatically altered the landscape and weather. It is not a matter of if there will be a fire in Marin, but rather, when. Government cannot solve this problem alone. Communities must also take action in order to be successful.



Board of Supervisors Takes Action

After the deadly and destructive fires throughout California, particularly those in Sonoma and Napa counties in the fall of 2017, the Marin Board of Supervisors took action by creating a sub-committee of stakeholders tasked with examining lessons learned from these recent events, taking an inventory of Marin's level of preparedness, identifying gaps, and developing recommendations to ensure both government and residents are better prepared for the inevitable wildland-urban interface fire in Marin.

The sub-committee included the following representatives from public safety, local government and land management agencies:

Fire	Law / OES	Land Management Agencies	Local Government
Marin County Fire Chiefs Association	Police Chiefs Association	Marin County Parks	Marin County Board of Supervisors
Marin County Fire Department	Marin County Sheriff's Office	Marin Municipal Water District	Marin City Managers Association
FIRESafe MARIN	Marin County Sheriff's Office of Emergency Services	California State Parks	Marin County Administrator's Office
		National Park Service	

Sub-committee membership:

- Marin County Board of Supervisors – Supervisor Judy Arnold
- Marin County Board of Supervisors – Supervisor Dennis Rodoni
- Marin County Sheriff's Office – Sheriff Robert Doyle
- Marin County City Managers Association – Jim McCann
- Marin County Sheriff Office of Emergency Services – Emergency Manager Chris Reilly
- FIRESafe MARIN – President Rich Shortall
- Marin County Police Chiefs Association – Chief Jacki Graf
- Marin County Fire Chiefs Association – Chief Bill Tyler
- Marin County Fire Department – Chief Jason Weber and Battalion Chief Christie Neill
- Marin Municipal Water District – Crystal Yezman and Mike Swezy
- Marin County Parks – Max Korten and Mischon Martin
- California State Parks – Bree Hardcastle and Cyndy Shafer
- National Park Service – Fire Management Officer Jordan Reeser
- Marin County Administrator's Office – Charlotte Jourdain



Scope of Sub-Committee Work

The scope of the work of the sub-committee was to gather fire, law, emergency managers, and land managers, as well as policy makers, to analyze three primary areas associated with wildland fire protection:

1. Wildland Fire Prevention and Protection
2. Vegetation Management
3. Emergency Notifications & Evacuations



(Left): The Community Wildfire Protection Plan, adopted by the Board of Supervisors in 2016, is a data driven document helping prioritize community preparedness projects throughout Marin. (Below): Mapping showing the potential for extreme fire conditions based on flame lengths throughout Marin County (2016).



Panel Interview

North Bay Leaders Provide Insight

An important part of the sub-committee's work was to learn from those directly involved in the North Bay Fire Siege. Thus, the Santa Rosa and Sonoma Valley Fire Chiefs, CAL FIRE Executive

Leadership, Sonoma County Sheriff, Santa Rosa Police Chief, and Sonoma County land management agencies were invited to participate in a special meeting. Through a structured question and answer forum, the sub-committee learned firsthand valuable insights from emergency responders, emergency managers, and land management agencies.

The following is a summary of the information that was shared during these interviews. These items were further discussed by the sub-committee in relation to the existing policies and procedures in Marin County and taken into consideration when outlining the areas for improvement presented in this report.

Land Management Agencies:

- Land management agencies should plan strategically for fire hazard reduction work and funding
- Invest in "LIDAR" aerial terrain and vegetation mapping system to improve identification of dead and down material and to better assess forest health
- Define high risk hazard areas
- Develop policies/procedures related to defensible space of bordering communities
- Map cultural resources
- Develop pre-incident procedures to utilize rangers and other staff in the support of emergency operations
- Increase public education awareness around defensible space and landscaping
- Better understand post fire implications, especially debris flow
- Better understand benefits of fire on the landscape for fuel reduction and ecology

Law Enforcement:

- Better manage multiple notification systems (Nixel, SoCoAlert, AlertMarin, EAS) given challenges in identifying how to best inform residents on multiple systems (cellular, home, VOIP, etc.)
- Improve community outreach to increase notification systems registrations
- North Bay officials do not recommend "air raid" type sirens
- Importance of social media cannot be overstated, before, during and after a disaster
- Improve access to phone data (cellular and VOIP), including numbers and locations through legislation
- Assign law enforcement leadership to their roles and give them the authority to make decisions
- Have consistent messaging from all agencies, especially regarding evacuations and re-population
- Importance of Emergency Operations Center training

- Develop procedures for the elderly and residents with functional needs prior to event, particularly with regards to evacuation
- Plan out staffing schedules and command structures to ensure regular communication with employees

Emergency Managers:

- Multiple emergency notification systems present challenges
- Important to include Spanish language translation of emergency notifications
- Update and expand existing written public alert and warning plans
- Train and authorize public safety Incident Commanders on public warnings and evacuations
- Train alert operators and personnel in dispatch centers and EOCs to activate emergency alert systems
- Develop pre-scripted messaging
- Establish regular documented refresher training program for alert authorizers and alert operators
- Establish detailed procedures for coordinating delivery of alert and warning messages between multiple platforms, including Nixle and SoCoAlert
- Specify use of Wireless Emergency Alert (WEA) and establish procedures
- Explore the potential use of community 2-1-1 to relieve pressure on 911 system
- Review and expand planning for rapid evacuations

Fire Agencies:

- Shortage of emergency resources / system drawdown
- Fire season is now year-round
- Shortage of Statewide Fire Crew (fire response & vegetation management)
- Structural ignitability and focus on hardening structures through remodels and new construction ensure building and fire codes create fire resistive construction materials and techniques (commonly known as "hardening structures")
- Establish closer working relationships between cities, towns, and county related to building and development in the Wildland Urban Interface (WUI)
- Current WUI codes in place focus on new construction; County is built-out so resulting changes are too slow in the built-out environment; thus, built-out communities do not meet current fire codes
- Importance of creating defensible space and the ability to enforce defensible space fire code
- Need additional staffing to support defensible space inspections and pre-fire planning
- Establish code consistency between public agencies
- Need for increased public awareness during heightened fire danger "weather events"

- Utilize fire history to help predict and plan
- Collaboration amongst all stakeholders is key
- Vacant lots need vegetation management
- Pre-planning for communities developing and utilizing mutual threat zones to ensure multi agency collaboration
- During fire event, follow pre-established communication procedures with the public and elected officials
- Pre-assign staff and establish procedures for the critical task of tracking resources and costs so that FEMA may reimburse

Public Listening Session / Community Forum

On March 6, 2018, the subcommittee hosted a community meeting to hear feedback and ideas from the public and to boost awareness of existing programs in Marin. Representatives from all agencies who participated on the sub-committee were on-hand to answer questions. Concerns and questions addressed in the forum have been incorporated into the recommendations. Appendix A is the Questions and Answers verbatim from the public session. These questions and public comments were important factors that informed the final recommendations included in this report. The forum in its entirety can be found at the link below:

Link to Public Forum: <https://youtu.be/obBbUnGpOtQ>

Insurance information for homeowners is at 53:51 minutes in the video



Marin Valley Mobile Country Club members meet to learn more about fire safety. MVMCC is a leader in community involvement and preparedness.

Areas for Improvement

The following list includes areas for improvement based on the sub-committee's lessons learned from our counterparts in Sonoma and Napa Counties, feedback from the community, and an analysis of existing programs and policies in Marin. These items are numbered for reference, but no order or priority should be implied by this list.

While some of these measures have already been implemented, several others are dependent upon the involvement of a broad group of stakeholders and collaboration between government and residents. Some items require further exploration.

Fire	Recommendations from Sub-Committee	Responsibility	Comments /Notes
1	Coordinate annual joint meeting to review and prioritize recommendations in this report as well as ongoing goals of CWPP	All Agencies	Spring 2019
2	Ensure/develop consistent application of defensible space codes and enforcement across fire agencies	All Fire Agencies	Code Adoption Fall 2019
3	Increase crews for fuels reduction work. Consider North Bay Conservation Corps and other career path groups for youth	Marin County Fire Department (MCFD), Fire Safe Marin (FSM)	County added one 12-person crew with National Park

			Service support FY18-19.
4	Improve MCFD ability to cite for parking violations on fire lanes and critical access/egress roads and fireworks	MCFD, Marin County Sheriff's Office (MCSO), District Attorney (DA)	Further exploration required
5	Develop program to assist seniors and those with functional needs to accomplish defensible space	MCFD, Fire Agencies, Health and Human Services (HHS)	MCFD was awarded \$14K grant, with matching funds secured in FY 2018-19 Budget disaster set-aside
6	Outline and/or develop process to enforce compliance of defensible space on properties including and up to liens on property in all Fire jurisdictions	Fire Agencies	Further exploration required
7	Mandate fuel reduction on vacant lots agreed upon size in agreed upon proximity limits to structures; Outline and/or develop process to enforce compliance on vacant lots including and up to liens on property.	All Fire Agencies, County, Cities/Towns, code enforcement officials	Fire Prevention Officers (FPOs) to draft recommendations for next code cycle (Fall 2019)
8	Break out mapping within CWPP by fire agency	MCFD, FSM	County applied for Local Hazard Mitigation Plan Grant \$25k and secured matching funds as part of FY 2018-19 Budget disaster set-aside
9	Increase community outreach for red flag and other critical fire weather events through FSM	FSM, Fire Agencies	Utilize Nixel, Social Media in interim as Fire Chiefs develop guide.
10	Guide and support FireWise Communities increase from current 13 to 20 communities in 24 months	FSM, Fire Agencies	On track to complete
11	Expand private fundraising for FSM	FSM	Further exploration required
12	Secure funding to support Disaster Coordinator contract position estimated at \$80K annually	All municipalities	County contribution for a 0.5 FTE secured in FY 2018-20

			Budget disaster set-aside. Commitment from other municipalities needed.
13	Increased funding for FIREsafe MARIN from the Board of Supervisors to \$40K to support coordination and public outreach	Marin County Board of Supervisors (BOS), FSM, MCFD	Will increase to \$40k in FY 2018-19
14	Increase/improve public awareness of fire safety measures/preparedness through FSM	FSM, Fire Agencies	FSM was awarded \$75K grant for awareness campaign
15	Consider Wildland Urban Interface (WUI) building codes for all building regardless of in or out of WUI zones.	Community Development Agency (CDA), Fire Agencies, Cities/Towns	FPOs to draft recommendations for next code cycle (Fall 2019)
16	Prohibit and/or ban pyrophytic plants similar to San Rafael code	Fire Agencies, County, Cities/Towns	FPOs to draft recommendations for next code cycle (Fall 2019)
17	Widen/maintain right of way zones where possible to maximize access/egress on primary and secondary evacuation routes	Fire Agencies, Cities/Towns, County	Fire Agencies to meet with DPW Directors by 1/1/19
18	Consider use of PG&E, DPWs, Land Management for non-conventional roles in disaster (traffic, EOC, call centers, etc.)	All	Further exploration required
19	Consider dedicated funding source for vegetation management to support work in most critical areas.	Fire Agencies	Fire Chiefs to develop recommendation by 1/1/19
20	Evaluate and expand sheltering plans	HHS, Office of Emergency Services (OES),	In progress
21	Under fall "red flag" conditions with regional draw down and and/or expected significant fire weather, develop process to enhance staffing/preparedness countywide.	All Fire Agencies, State Legislature (DRISC), CAL-OES	Current and expanding
22	Volunteer coordination improvements in partnership with Volunteer Center and OES	OES, HHS, Cities/Towns	Further exploration required
23	Further develop recently implemented call center to include multiple languages and utilize "211"	MCFD, OES	Call Center established

24	Regular communication and progress checks of PG&E infrastructure and improvements.	MCFD, Land Management Agencies, County, Cities/Towns, FSM	Demand letter sent to PG&E from Land Managers and Fire Officials on February 28, 2018. State Public Utilities Commission engaged
25	Adopt code to require battery backup for Garage Doors	Fire Agencies, Cities/Towns, County	FPOs to draft recommendations for next code cycle (Fall 2019)
Land Management	Recommendations from Sub-Committee	Responsibility	Comments /Notes
1	Increase fuels reduction work and response capabilities by expanding Fire Crew programs in partnership with MCFD	NPS, MCOSD, MMWD, MCFD	County added one 12-person crew with National Park Service support FY18-19.
2	Create consistent approach to access of neighbors on public lands to create defensible space	NPS, State Parks, MCOSD, MMWD	Guideline being drafted
3	Align protocol for land use restrictions and access for all public lands	NPS, State Parks, MCOSD, MMWD	Guideline being drafted
4	State Parks to produce/distribute fact sheet to neighbors	CA State Parks	Complete
5	Fuel reduction work in strategic state park areas including China Camp and Inverness Ridge	CA State Parks	Further exploration required
6	Focused work on projects as outlined in the CWPP	MCOSD	Annually projects are chosen utilizing the CWPP as a guide.
7	One Tam initiative "Early Detection/ Rapid Response program" to identify and remove non-native invasive plants	MCOSD	Implemented
8	Matching investments of funding or in kind work with neighbors adjacent to MCOSD lands.	MCOSD	Further exploration required
9	Use CERT groups to help engage neighbors	MCOSD, NPS, State Parks, MMWD	Further exploration required
10	Fund LIDAR vegetation mapping.	MCOSD, State Parks, MMWD, NPS	Board of Supervisors

			approved \$584,400 purchase of 6 LIDAR, jointly funded, on 5/22/2018
11	Utilize investment plan for vegetation management	MMWD	In progress refer to MMWD Vegetation Mgmt. plan
12	Consider road closure and land restrictions during high/extreme fire danger.	MMWD, Fire Agencies	Further exploration required
13	Develop and identify transition zones where public lands abut residential areas and provide additional fuel modification beyond the traditional defensible space limits.	Land Management Agencies, Cities/Towns, Fire Agencies	Pacheco Valle, Inverness Ridge in progress
14	Maintain integrity of fire road network for access and egress of fire equipment in collaboration with fire agencies.	Land Management Agencies, Fire Agencies	Continuous and ongoing
Law Enforcement	Recommendations from Sub-Committee	Responsibility	Comments /Notes
1	Increase the number of evacuation exercises ensuring each Law Enforcement Agency hosts at least one annually in their service area.	Law Agencies, OES, Fire	Partially complete for 2018
2	Improve Law Enforcement mutual aid	MCSO	Develop request plan for local agencies through MCSO
3	Improve process of Out of County mutual aid and reimbursement process for LE	MCSO	Work with State Legislature
4	Staffing OES to meet objectives/goals	MCSO, OES	MCSO to develop
Office of Emergency Services	Recommendations from Sub-Committee	Responsibility	Comments /Notes
1	Update evacuation plan by 6/1/18	OES	Final draft completed-developing training schedule
2	Refine emergency transportation plan within 36 months	OES	In progress – Plan in development stage.
3	Create evacuation media message video/info for public distribution	OES	Complete by 1/1/19

4	Develop metric to track and increase volume of residents opting in to AlertMarin	OES	In progress
5	Add Spanish language version to AlertMarin	OES	In Progress funding established
6	Address Senior population and outreach for AlertMarin	OES	In progress
7	Improve consistency of messaging on social media platforms (Facebook, Nixel, Twitter, etc.) amongst public agencies to ensure accurate and timely distribution of non-emergency information to the public	All	Held joint meeting of Public Safety PIO's Countywide June. Developing guideline with police and Fire Chiefs by 1/1/19
8	Develop best practices for preparedness, notification and successful evacuation of seniors and access and functional needs community members.	ALL	In progress – working with County AFN Reps.
Cities/Towns	Recommendations from Sub-Committee	Responsibility	Comments /Notes
1	Address access and egress roads with public works and host joint meeting of stakeholders	Cities/Towns, DPW's, Fire	Scheduled Fall 2018
2	Engage neighborhoods to encourage FireWise Certification	Cities/Towns/County	In progress
3	Mill Valley to share 6 town initiatives that can be used in other Towns.	Mill Valley/Towns/Cities	See Appendix B
4	Improve /Expand/Add "Steps-Lanes-Paths in areas where access / egress of vehicles is limited.	All	Further exploration required
5	Develop uniformity between cities specific to codes, planting etc.	Cities/Towns/County	FPOs to draft recommendations for next code cycle (Fall 2019)
6	Expand EOC training for public agency staff (Disaster Service Workers)	Cities/Towns / OES	In progress
7	Improve messaging during periods of heightened fire danger e.g. Red Flag days	All	In progress
Public	Recommendations from Sub-Committee	Responsibility	Comments /Notes
1	Harden homes to decrease structure ignitability. Install fire resistant roofing, siding, vents, and dual pane windows to meet Fire Code	Public	Ongoing
2	Create and maintain defensible space including removing all fire prone plants from your existing ornamental landscape	Public, Land Mgt. Agencies, Fire Agencies	Ongoing

3	Keep driveways and roadways clear to ensure emergency access and egress,	Public, Law	Ongoing
4	Ensure insurance policies are adequate to relocate and rebuild.	Public	Annual review
5	Neighbors helping and knowing neighbors especially elderly and those with access and functional needs	Public, NGO's, CERT, HOA's	Ongoing
6	Become a Firewise designated community	Neighborhoods, HOA's, Fire Agencies	In progress and ongoing

Next Steps

The list of improvements presented above helped to inform the County's FY 2018-19 workplan and several new investments to improve disaster preparedness for our community. Some items have already been accomplished, some are in progress and some require further analysis and agreement among our community partners. While the Marin County Board of Supervisors initiated this process and is committed to furthering efforts in disaster preparedness, many items can only be accomplished with the help of our residents, community partners and various stakeholders.

With the Board's addition of emergency preparedness as one of their top priorities, County departments responded to include new initiatives as part of their budget and FY 2018-19 department Performance Plan. These initiatives were presented the Board of Supervisors during the March 2018 Budget hearings. The following section provides the list of County Departments disaster preparedness initiatives, as many overlap with some of the areas for improvements listed above.

Marin County Fire Department:

- Initiate a Defensible Space "Blitz"

Marin County Sheriff's Office / Office of Emergency Services (OES)

- Update evacuation plan with Community video
- Prepare a revised sheltering plan with cities and towns

Parks and Open Space

- Greater coordination with Fire's Vegetation Management Crew

Health and Human Services

- Relaunch HHS Preparedness Committee and establish care and shelter working group

Information Services and Technology

- Work with OES to develop business continuity plan and mobile Emergency Operations Center capabilities

Human Resources

- Create Disaster Service Worker training video

County Administrator

- Provide Building evacuation exercises of County facilities
- Improve Disaster Service Worker Program and employee awareness

As reflected in the table above, in July 2018, the Board of Supervisors approved two agreements with the National Parks Service, adding a 12-person Fire Crew for fire preparedness and fuel reduction. The second agreement provided funding to increase staffing during the peak fire season (July-October) allowing for the staffing of two additional wildland engines in and adjacent to NPS lands. This partnership allowed both agencies to increase and improve wildland fire protection and preparedness.

Based on recommendations from the Countywide Disaster Council DC3, Marin County Fire Department applied for and was awarded \$75,000 from the State Homeland Security grant program to re-invigorate the Countywide Get Ready program for emergency preparedness. The funds will become available in the fall of 2018.

Concurrent with the adoption of this report, Marin County Fire Department is recommending that the Board of Supervisors approve an increase in funding to FireSafe Marin, from the current \$20,000 to a total of \$40,000 in FY18-19.

Finally, as part of the FY 2018-20 Budget, the Board of Supervisors also created a one-time \$500,000 allocation for Emergency Preparedness Initiatives. The Lessons Learned Committee recommends that \$122,500 be immediately allocated to the following items:

- \$15,000 in additional funds for the Marin County Fire Department grant for Senior residents and those with functional needs to accomplish defensible space (Fire item # 5)
- \$7,500 in matching funds for Marin County Fire Department Local Hazard Mitigation Plan grant for the break out mapping of the Community Wildfire Protection Plan by fire agency (Fire item # 8)
- \$100,000 for a 2-year part-time contract Disaster Coordinator position (\$50,000 annually). The remaining funds to increase this contract to full-time requires financial commitment from other municipalities within the County. (Fire item # 9)

The remaining balance of \$377,500 will remain in reserve as this sub-committee and its stakeholders continue to determine the best investments to improve our County's overall preparedness. We will return to your Board in the future with additional recommended investments.

Contact Information:

Board of Supervisors Sub-Committee Chairs:



Dennis Rodoni
Supervisor District 4
Tel 415-473-7331
Fax 415-473-3645
DRodoni@marincounty.org



Judy Arnold
Supervisor District 5
Tel 415-473-7331
Fax 415-473-3645
JArnold@marincounty.org



Jason Weber
Fire Chief
Staff to Supervisors
Tel 415-473-4100
Fax 415-473-2969
jweber@marincounty.org

Appendix A:

Public Listening Session / Community Forum:

Questions and Answers

- 1) Do cities or county offer solutions if a neighbor is not clearing dead trees/vegetation around a home:
 - a. State Law and Marin County Fire Code require homeowners to create 100 feet of "defensible space." If trees are dead and within 100 feet of a home, the local Fire Department can inspect and document the issue.

- 2) What are towns and cities doing to work on spaces bordering Open Space land to make them more defensible?
 - a. There are ongoing cooperative efforts between land management agencies and public agencies to work together on safety and defensible space. These efforts include:
 - i. Together hiring defensible space contractors so that funds are used more efficiently.
 - ii. Identifying strategic areas in need of defense, as well as sensitive environmental areas.
 - iii. Cooperating with each other to quickly stop any fires.

- 3) Are sheep/goats still used for vegetation management?
 - a. Yes, sheep and goat grazing is one of several methods used to reduce fuel in Marin. Other methods are explained in the Vegetation & Bio Diversity Management Plan and include mechanical removal of plants. The method chosen depends on the situation.

- 4) What is the best way to prepare aging populations for evacuations and receiving emergency alerts, especially since many elderly do not carry cell phones and are not technologically savvy?
 - a. There are several ways including:
 - i. People without cell phones should know that the AlertMarin Notification System contains all the land line numbers from Verizon and AT&T (working to get data from Comcast) and, in emergencies, will call out those numbers.
 - ii. For those with cell phones, all they need to do is to register them with AlertMarin (www.alertmarin.org).
 - iii. Get to know your neighbors, including the elderly, and check on them when you receive emergency alerts.
 - iv. Be personally prepared ahead of time – Ready Marin (www.readymarin.org) has much information and resources about personal and family preparedness.
 - v. Elder care homes – larger ones must have a plan for evacuation. Smaller ones may not have one.

- 5) What about evacuations for impaired persons?
 - a. Have a plan for assistance to notify response agency prior to the emergency.
 - i. Make sure you have a home evacuation plan and review it with your family.
 - ii. Work with neighbors and family to plan ahead.
 - iii. Consider leaving the area if the situation becomes bad.

- 6) Please stop directing people to go to websites during an emergency when fire breaks out as it's not useful.
 - a. Public Safety officials will use every form of contact during actual emergencies to reach residents, including phone, text, email, AlertMarin, the WEA system (Wireless Emergency Alerts), and Social Media. Duplication will be needed.

- 7) Why does the Water District have fire resources?
 - a. In order to manage fire hazards in Marin's three Watersheds, MMWD has five fulltime employees plus contract staff equaling about ten. Often these resources are first on the scene of fires in the area. The District also has a boat with a fire pump to access remote areas and to pump water. During emergencies personnel communicate with MMWD Command and collaborate with fire and law agencies. During the last fires, MMWD lent their fire engines, bull dozers, and other equipment to support the fire effort. These same resources are also used by the District to manage vegetation and associated fire hazards on their lands.

- 8) Is it the land management agencies' responsibility to clear areas and manage vegetation near homes?
 - a. It is the homeowner's responsibility to clear 100 feet of defensible space around their homes. The agencies allow access to their lands by the homeowners if the open space is within their 100 feet requirement. They will also partner with homeowners to work together to clear space. The Vegetation & Bio Diversity Management Plan explains about this in more detail.

- 9) What can be done to harden structures or to retrofit homes for defense?
 - a. Replace with California State Fire Marshal compliant roof and attic vents, which keeps the embers out and also ventilates the space.

- 10) For renters, what can be done if a landlord is not doing anything proactively to protect against fire?
 - a. The suggestion is to talk to the landlord to try and work together on these issues, including possibly sharing costs. If the WUI code is in question, contact your local fire agency for a review. There may be fire insurance cost reductions possible, which could motivate landlords to cooperate.

- 11) Is PG&E at this meeting? What are they doing to help in this area?
 - a. They are not at this meeting, but MMWD just met with them.
 - i. They are sometimes a good partner and take their role seriously.

- ii. MMWD and other open space agencies are reaching out for more data to confirm that PG&E is meeting all the CPUC regulations for clearance around their lines. They are sending a joint letter to the CPUC confirming that a new audit of PG&E's compliance is being done.
- iii. PG&E does have a North Bay Fire Management representative.

12) Is there an egress plan for the Ross Valley? Can Sir Francis Drake Boulevard handle the impact of an evacuation?

- a. There is an evacuation plan for the Ross Valley with a primary evacuation route identified. The alert systems are being fine-tuned to try to only evacuate necessary areas and not overload. Residents need to understand multiple ways out depending on conditions.
- b. Marin is a "built" environment so there are limitations on what can be done in towns and cities to widen/improve evacuation routes. People need to help keep evacuation routes clear by removing overhanging vegetation, parking their cars out of the way, and by removing trash cans, so that response equipment can get through.

13) Is there enough water flow from MMWD during emergencies?

- a. During large fire events, water pressure will decrease due to fire flow; however, MMWD has on site valve operators to help keep the water flowing. MMWD is working on further ways to ensure that water pressure can be maintained throughout fire events.

14) What is the responsibility of law enforcement during fires – what is the process?

- a. Law enforcement's primary responsibility is evacuation. They also are responsible for the security of the areas under fire and the evacuation zones. During an emergency, they can receive mutual aid assistance and state-wide cooperation.

15) What are the agencies doing to prevent fires?

- a. Hopefully this was answered during this meeting. The people who attended are engaged. We now need to work together to get everyone else engaged.

16) What about students (or others volunteering) to remove vegetation:

- a. Volunteers are very welcome and appreciated from schools, non profits, and other volunteer organizations. Last year alone there were 9,000 volunteer hours contributed to Marin County Parks.

17) Who manages the China Camp Park?

- a. California State Park is its land manager. The State is getting ready to meet with local fire agencies to assess what more can be done. Fuel breaks have been created, and they are planning to work on the fire roads. California State Park could use volunteers at China Camp.

18) What about the balance between defensive space vs. wildlife habitat?

- a. Defensible space requirements are focused on the structure and surrounding dead vegetation. There are no real concerns that should conflict.
- 19) What about power outages during fires?
- a. All wildland fire agencies carry portable pumps so they can access and use any water available, such as swimming pools and lakes, for example. There are also back up pump systems available.
- 20) If Homeowners Associations (HOA's) aren't interested in taking action, what can be done?
- a. Try to engage with them as much as possible and use peer pressure. Start by getting a small group together.
 - b. HOA boards may have fiduciary responsibilities to protect homes. Members can make a compelling case for them to take action.
 - c. City and Town Councils can adopt regulations, fund efforts for preparedness and work on improving infrastructure. These items can be added to their budgets.
 - d. Cities / Towns and agencies can work together.
 - e. FIREWISE USA communities are examples of ways to engage / organize neighbors and HOAs
 - f. USAA Insurance offers discounts for recognized FIREWISE sites.
- 21) What can be done to prevent insurance cancellations?
- a. Maintaining defensible space can assist homeowners with retaining their homeowners insurance.

Appendix H – 2019 Civil Grand Jury Report Excerpts

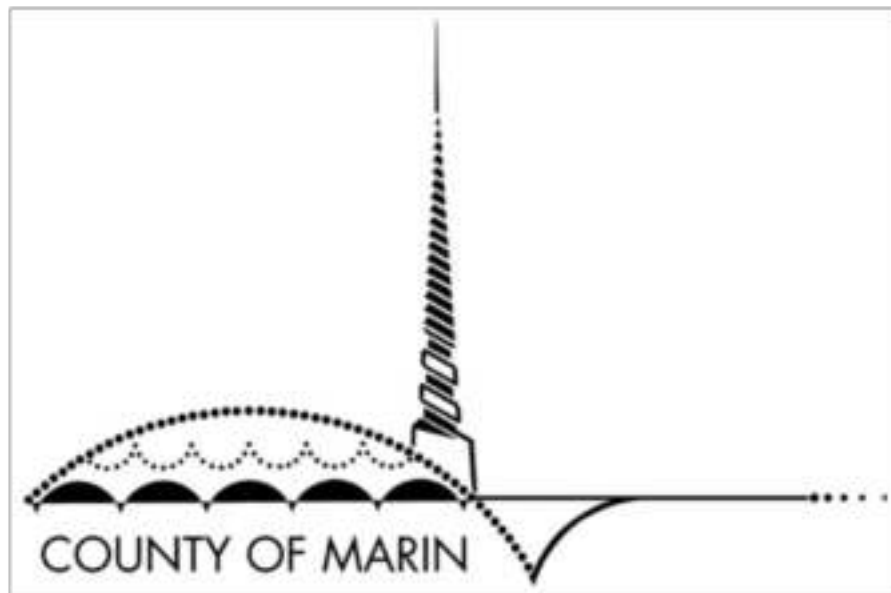
2018–2019 MARIN COUNTY CIVIL GRAND JURY

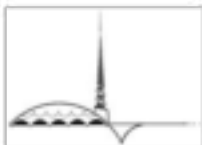
Wildfire Preparedness

A New Approach

Report Date: April 18, 2019

Public Release Date: April 25, 2019





Wildfire Preparedness: A New Approach

SUMMARY

Marin faces unprecedented danger to life and property from wildfire. The Grand Jury reviewed the conditions that make us vulnerable to wildfire, assessed the plans currently in place to correct them, and recommends a new approach to meeting these challenges. Four areas of vulnerability stand out:

Vegetation Management: Fuel conditions make Marin extremely vulnerable to wildfires. Through a combination of aggressive fire suppression and environmental policies, overgrown vegetation has created hazardous fuel loads throughout the county. The policies and procedures intended to manage and reduce vegetation are inadequate. Too few inspectors are available to determine compliance, and enforcement is too slow.

Educating the Public: The public's ignorance of how to prepare for and respond to wildfires makes Marin vulnerable. Most people do not know how to make their homes fire resistant or create defensible space by cutting back vegetation. Many have failed to collect emergency supplies or plan for evacuations. Nearly 90% of the county's residents have not signed up to receive emergency alerts. Programs to educate the public for wildfire are not well known and are offered infrequently. The county's only organization assigned to educate the public about wildfires is understaffed.

Alerts: The two crucial emergency alert systems in the county have a flaw that restricts their reach. Both Alert Marin and Nixle, as opt-in systems, warn only those who have registered.

Evacuations: Evacuation planning is also a grave concern. Marin's topography creates great danger for those who live far from the main evacuation routes. Most connecting roads are narrow and overgrown. Some are constricted by traffic calming obstacles such as concrete medians, and bump outs which impede traffic in emergency evacuations. Plans to ease emergency traffic flow such as traffic-light sequencing and the conversion of two-way roads to one-way flow corridors are years away from implementation. Marin's roads lack the capacity for a mass evacuation in personal vehicles. Public transit is a neglected piece of evacuation preparedness and is underused. Inertia and complacency have prevented a proactive and nimble response to wildfire dangers.

The Grand Jury Proposes: The creation of a joint powers authority to coordinate a comprehensive, consistent approach to pre-ignition planning funded by a ¼ cent sales tax. This new approach will remedy the gaps in our preparedness and demonstrate our political will to improve wildfire safety in Marin.

CAMP FIRE

Worst air on Earth

State urged to take steps to protect public



Air Quality During the Camp Fire. Marin Independent Journal dated November 17, 2018.
(Risberg, Eric. Associated Press)

CONCLUSION

Proposed Umbrella Entity

In response to its pre-ignition and pre-suppression planning concerns, the Grand Jury proposes the creation of a countywide entity whose purpose would be to coordinate fire preparedness throughout the county regardless of the political jurisdiction. This proposed umbrella entity (the "Entity") would not propose to interfere with actual fire-fighting issues nor would it attempt a countywide consolidation of fire departments or districts. Its mission would be to focus on pre-ignition and pre-suppression issues only.

Proposed Powers

The countywide Entity would have authority to investigate, create, propose, and carry out programs and processes in the following areas:

1. **Vegetation management:** Create a countywide group of at least 30 plus full-time vegetation management inspectors with authority granted by each constituent jurisdiction to inspect property throughout the county regardless of the city/town or county where the property is located. The inspectors would be authorized to issue citations to enforce countywide protocols established by best practices for safe vegetation management. The Entity would create uniform enforcement of vegetation management citations as well as develop an expedited legal process akin to the process currently used in civil courts for evictions. This would ensure prompt compliance with citations. If the creation of this accelerated enforcement procedure requires state legislative action, the Entity should lobby the California legislature for these changes.
2. **Fuel Reduction Crews:** Create sufficient fire/fuels crews whose sole responsibilities would be to work on reducing the fuel load starting with the highest fire risk areas.
3. **Education:** Engage in public outreach and education either through dedicated staff or by subcontracting with FIRESafe Marin.
4. **Alerts and Evacuations:** Develop countywide best practice policies for alert notification systems and evacuation route planning, including the possible use of new technology, such as the LRAD system, as well as working with public transit agencies to develop emergency response protocols, evacuations, drills and alerts.
5. **Public Participation:** Create programs to encourage fuel reduction work by citizens on their own properties as well as develop funding programs either by the Entity or through grants from other sources to help the elderly, those with access and functional needs, and low-income residents.

Suggested Structure

The Grand Jury proposes that the Entity be a Joint Powers Authority (JPA). It should include every special fire district, every city and town, Marin County Fire Department, Marin Municipal Water District (MMWD) and Parks and Open Space. See Appendix D for a list of those that should be members of the Entity.

Although the fire chiefs and city/town managers in the county have come together to formulate a joint community-wide response to all the major wildfire issues, their working group is an informal structure. This group will not be able to fully implement and enforce all of the programs and protocols necessary to make Marin firesafe and prevent individual jurisdictions from adopting their own practices. As fire knows no jurisdictional boundaries, a countywide JPA must be formed to unify wildfire preparation.

Funding

Funding for pre-ignition and pre-suppression projects is the main obstacle cited by all government agencies and fire districts. Not only do government entities claim that there are no excess funds in their budgets, individual fire departments and special fire districts also claim that they do not have enough money to undertake the types of pre-ignition and pre-suppression proposals cited in this report. It is imperative to solve this critical issue.

Two practical methods for funding the Entity are (1) a countywide parcel tax or (2) a countywide sales tax:

1. **Parcel Tax:** According to the Assessor's office there are approximately 90,000 taxable parcels in Marin County not counting the extensive holdings under control of the Golden Gate National Recreation Area, MMWD or Marin County Parks. Thus, any parcel tax paid would have to be high enough to fund projects on these tax-exempt lands. In order to be effective, each jurisdiction would have to pass exactly the same parcel tax measure for the same amount at the same time. Besides the difficulty of having 11 cities and towns as well as the county coordinate such a process, there are a number of special fire districts in the county that would also have to be involved in the drafting and implementation of this process. If just one jurisdiction fails to cooperate with this proposal, the benefit of having a countywide plan to deal with wildfire preparedness would fail. Based on these very real political issues, the Grand Jury does not recommend a parcel tax as the best method to fund the Entity.
2. **Sales Tax:** The best way to fund the Entity is to authorize a countywide quarter cent sales tax. Under state law, the sales tax is 6% plus an additional mandatory 1.25% for local jurisdictions for a total of 7.25%. State law allows local jurisdictions to assess up to an additional 2% sales tax with voter approval. The 7.25% coupled with the 2% maximum means that the maximum sales tax could be 9.25%. However, the state legislature routinely allows local entities to exceed the 2% cap by simply passing a statute to that effect. For example, all of Los Angeles County, including its 16 cities, plus an additional seven cities in Northern California have requested and been granted the right to exceed the 2% limit.

Because of the 2% cap, a number of local officials have resisted putting this final ¼ cent tax before the voters. However, only four jurisdictions currently have actual combined sales tax rates at the 9% level. The remaining eight jurisdictions could easily add this ¼ cent and still not hit the 2% ceiling. Each jurisdiction's current sales tax is attached as Appendix G. As for the four jurisdictions that would hit the 9.25% maximum, they would be likely to get a state exemption should the need arise in the future.

Finally, the most important reason for recommending a ¼ cent sales tax as a funding mechanism is that there need be only one enabling statute which can be placed directly on the ballot by the Marin County Board of Supervisors with the agreement of all the political jurisdictions. Marin voters used this process in November 2018 to continue a ½ cent sales tax for transportation improvements.

The time has come to use the final ¼ cent sales tax for our most pressing countywide issue, wildfire. If not now, when? If not for this, then for what? What could be more important than saving lives? If the citizens of Marin are given a chance to make their county as safe as possible from wildfires, passing this sales tax measure should not be a problem. It will provide a steady source of revenue so that the local governments and special fire districts will not have to tap into their budgets. As part of this ballot measure, a citizen oversight committee should be created to make sure that the funds collected are used solely for the mission of the Entity.

Local Interests Must Be Subsumed Into A Countywide Organization

This proposal is revolutionary for Marin. It will require every government entity and every special fire district to become a member. The only way to make Marin safer is for the entire county to work together and not allow local politics to torpedo this innovative proposal.

A number of critical issues prevent Marin from being fire safe. Current vegetation management policies, alert systems and evacuation planning, as well as current public education efforts are insufficient to make Marin pre-ignition and pre-suppression fire safe. The most crucial issue is the political will to create this countywide agency with such broad authority.

The citizens of Marin must choose between safety and vegetation aesthetics.

The creation of this Entity allows for necessary actions to be developed and implemented for all pre-ignition and pre-suppression matters. The Entity will ensure that the tax funds are used solely for wildfire preparedness and not for other environmental priorities. It also does not impinge on local sovereignty except where necessary to create countywide best practices. Without the Entity, local jurisdictions have neither the will nor the money to undertake such sweeping measures.

Wildfires do not respect jurisdictional boundaries. Marin is known for providing mutual aid and cooperation among its professional firefighting agencies. What is missing are countywide, coordinated, science-based, pre-ignition and pre-suppression policies and procedures. This recommendation solves that issue.

FINDINGS — Vegetation

- F1. Existing vegetation management codes are both inconsistent and inconsistently enforced.
- F2. There are not enough trained vegetation inspectors or fuel reduction crews.
- F3. Current vegetation enforcement procedures are slow, difficult and expensive.
- F4. Government agencies and safety authorities cannot currently manage vegetation 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.

FINDINGS — Education of the Public

- F6. Wildfire preparedness education is inconsistent and fails to reach most citizens, especially parents of young children.
- F7. The most effective method of education is person to person in neighborhoods.
- F8. Although Marin has 30 plus Firewise neighborhoods, the most in California, they only cover a small percentage of population and land.
- F9. Sufficient public funds have not been provided to sustain comprehensive wildfire preparedness education.
- F10. Educating the public requires a different set of skills than firefighters usually have.

FINDINGS — Alerts

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

FINDINGS — Evacuations

- F14. In the WUI and in many town centers, infrastructure and roads are inadequate for mass evacuations.
- F15. Evacuation routes are dangerously overgrown with vegetation and many evacuation routes are too narrow to allow safe passage in an emergency.
- F16. Emergency planners often do not publicize evacuation routes due to their mistrust of the public.
- 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.
- F18. No studies have been performed to determine how long it would take to evacuate entire communities via existing evacuation corridors.
- 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.
- 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.
- 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.

FINDINGS — Umbrella

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

RECOMMENDATIONS — Vegetation

- R1. Create a comprehensive, countywide vegetation management plan that includes vegetation along evacuation routes, a campaign to mobilize public participation, and low-income subsidies.
- 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.
- R3. Develop and implement a fast, streamlined procedure to enforce vegetation citations.

RECOMMENDATIONS — Education

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

RECOMMENDATIONS — Alerts

- R7. Collect Marin residents' information and add it to Alert Marin and Nixle databases to make them opt-out systems.
- R8. Expand the use of sirens with LRADs.

RECOMMENDATIONS — Evacuations

- R9. Research, develop, and publish plans for the mass movement of populations along designated evacuation routes.
- R10. Give the highest priority to mitigating known choke points and to maximizing the capacity of existing evacuation routes.
- R11. Incorporate and prioritize plans for mass evacuations in all pending and future traffic/road projects along major escape routes.
- R12. Educate, prepare, and drill for evacuations in all communities.
- R13. Fully integrate public transit into the MERA communications system without further delay.
- R14. The Transportation Authority of Marin must convene all stakeholders no later than December 31, 2019, to address congestion on escape routes in an evacuation.

RECOMMENDATIONS — Umbrella Entity

- 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.