
**Staff Report on the
Fire Vulnerability Assessment,
Emergency Evacuation Plan
and the
Public Outreach Plan
For Mendocino County**

Developed for
Mendocino County Board of Supervisors

August 2020

Report in Brief

The Mendocino Council of Governments through a Caltrans grant has hired Category Five Professional Consultants, Inc. to construct a series of wildfire preparedness documents. They include a Public Outreach Plan, a Wildfire Vulnerability Assessment and an Emergency Evacuation Preparedness Plan. At the onset of the project, the consultants formed a technical advisory group (TAG) comprised of public safety officials including local fire chiefs and law enforcement, local and tribal government representatives, and other technical experts. These key stakeholders reviewed the consultants' work and provided valuable input throughout the planning process.

Recommendations

- 1) Staff recommends that the Board of Supervisors receive and file the Wildfire Vulnerability Assessment and Public Outreach Plan for Mendocino County.
- 2) Staff recommends that the Board of Supervisors adopt the Emergency Evacuation Plan as Annex A to the existing County Emergency Operations Plan.

Fiscal Impacts

Recommend Action: None.

As noted above the development of the plans were funded by a grant from Caltrans. The Fire Wildfire Vulnerability Assessment makes a series of recommendations, some of which will require County funding. These requests will be processed by the various County departments through the regular budget process.

Introduction

A series of large and destructive wildland fires within the County, the Redwood Fire (2017) and the Mendocino Fire Complex (2018), have dramatically reinforced the need to possess well thought out and practiced primary and alternate evacuations plans. When first responders and local agencies have current and concise plans in place, the potential to reduce life loss, property damage, and economic and public health impacts improves dramatically. In addition, when the general public has knowledge that sound planning is in place, they become more confident in their local government's capability to manage emergency events. A short review of the planning that occurred is as follows:

Public Outreach Plan (POP)

The goal of this outreach initiative was to understand the community's concerns regarding a wildfire threat and an emergency evacuation, increase the community's awareness of the wildfire risk, encourage residents to take steps to protect themselves, their family and property, improve their knowledge of evacuation planning, and increase their confidence in local first responder agencies' ability to handle a major disaster.

In November of 2019, CFPC conducted a widely advertised online survey to solicit public concern regarding the local fire threat and evacuation fears and to gain insight into the diverse needs of various communities and groups residing within the County. Instead of using multiple choice or yes/no answers, the survey was designed to encourage the public to provide detailed responses. The survey ran for six weeks and 252 survey responses were received (232 online plus 20 handwritten). Respondents provided a thorough representation from all areas of the County. This feedback was prioritized and incorporated into planning decisions and recommendations, as applicable.

Primary Issues uncovered included:

Mendocino County residents feel the entire County is vulnerable to a significant wildfire threat with danger to the unincorporated community of Brooktrails ranking as the greatest concern. Additionally, Ukiah, East of Fort Bragg, Albion/Navarro Ridge, Willits, Anderson Valley and West Hills are deemed vulnerable. Residents are particularly concerned with the risk to highway corridors from wildfire and the danger inherent in the Wildland Urban Interface and the many communities that have only one way in and out. They also expressed concern over the lack of proper street identification and addressing.

Area residents conveyed that a large number of challenges prevent their community from significantly reducing their wildfire risk. Of greatest concern is the lack of dedicated funding to support wildfire prevention and response efforts. Additionally, the accumulation of fuels found in many areas of the County are worrisome coupled with what many respondents feel is a local opposition to fuel reduction and the lack of sufficient hazard abatement ordinances. Similarly, people were concerned with the inability of fire agencies in performing prescribed burns due to increased restrictions and residents' inability to conduct local backyard burning of accumulated fuels.

Many individuals expressed that wildfire prevention mitigation was inhibited for bureaucratic reasons and the result of complacency by local government. Residents also feel that many property owners/absentee landlords provide substandard housing, fail to meet building code standards and are delinquent in taking appropriate measures to reduce the fuel load surrounding their properties.

The absence of a local evacuation plan was a concern voiced by many respondents in addition to the need for defensible space and secondary access. Many respondents want the ability to enter private properties when the need for secondary access becomes essential.

Many citizens felt that the existing alerting systems are inadequate and feared they would not be notified with sufficient time to safely evacuate. A large number of respondents are either unaware or confused about the MendoAlert and Nixle systems. Two-thirds of respondents have not enrolled and many claim these notification systems do not work or fail when the power is down. Compounding this notification concern is the unreliable cell phone coverage that exists in many areas of the County, spotty broadband service, and the recent increase in public safety power shutoffs (PSPS).

When queried about personal concerns if an evacuation was necessary, a large number of respondents worried about what would happen to their pets and livestock. Additionally, there was anticipated worry over family members and particularly disabled and elderly relatives.

With the results of the survey in hand, and with the support of the TAG, a comprehensive Public Outreach Plan was developed. Designed for long-term use, the plan:

- Adopts CAL FIRE's "Ready Set Go" program as a standard for the County's fire agencies
- Recommends the installation of bulletin boards displaying fire safety and evacuation planning in prime locations
- Lists fire and evacuation educational resources fire agencies can use throughout the year
- Provides a means of educating the public on wildfire safety and preparedness through a new Public Safety Announcement Program
- Presents a plan for informing the public about wildfire preparedness and safe evacuation processes through a communitywide public forum (Given COVID-19 restrictions, it will now be facilitated over zoom and recorded for public viewing).
- Recommends the County develop a Public Information Plan that establishes policies, procedures and training requirements for the County's public information officers

Fire Vulnerability Assessment (FVA)

A Fire Vulnerability Assessment was developed for Mendocino County which identifies County areas and populations that are most vulnerable to wildfire and provides recommendations on how to best improve the County's existing strategies and practices. The ultimate goal of the FVA is to prevent loss of life, minimize property damage caused by wildfires and reduce recovery effort spending.

The FVA provides a number of benefits not only to the County but also to the four cities within the County as it can be integrated into general plans and safety elements of all of these jurisdictions. Additionally, information from the FVA may be assimilated into the next update of the Regional Transportation Plan and the current updating of the Multi-Jurisdictional Hazard Mitigation Plan.

To develop this assessment, CFPC thoroughly reviewed a number of planning documents including the existing Community Wildfire Protection Plan (CWPP), the Hazard Mitigation Plan, the County General Plan, current land use and building ordinances, and the California Fire Resource Assessment Program (FRAP) maps. In November of 2020, MCOG and CFPC staff met with all of the County Fire Chiefs and the Sheriff at the monthly County Fire Chiefs Association meeting. CFPC staff shared with the group an overview of the project. Additionally, extensive interviews were conducted with the Sheriff's Office, local fire chiefs, fire district board members, County planning staff, building officials, tribal representatives, and other local government

officials. The impacts of the Redwood and Mendocino Complex Fires were also thoroughly examined.

The FVA identifies areas of the County and individual communities at greatest risk to wildfire, describes assets at risk to wildfire, determines where the transportation network in the County is vulnerable to wildfire impacts, and examines existing adaptation strategies and suggests methods and mitigation actions to lessen the impacts from wildfire.

In order to consistently and clearly describe the County's wildfire vulnerability, the consultant utilized the four planning areas (North/Northeast, Southeast/Central, Southwest, West Central/Coastal) outlined in the existing Community Wildfire Protect Plan (CWPP).

These planning areas:

- Match the Mutual Aid Zones utilized by local emergency response personnel (fire and medical)
- Generally, follow watershed boundaries
- Correlate closely with CAL FIRE battalions
- Are based on weather, and to some degree fuels and topography
- Take into account local jurisdictions and fire districts boundaries
- Consider population density
- Utilize common transportation corridors

Once the vulnerable areas and communities were identified, an overall description of each community and their assets at risk (critical infrastructure, private property, industry/business, and life threat) was developed. Additionally, the risk assessment includes a description of any special concerns that may put an area of the County at an elevated risk level for wildfire. Considerations delineated in the assessment include:

- Estimated Population
- Climate and Special Weather Concerns
- Topography
- Fuel Hazards
- Fire History
- Fire Protection
- Transportation Corridors
- Special Concerns and Hazards
- Critical Assets at Risk for Wildfire

Additionally, based on discussions with fire officers and emergency managers, the consultant worked with a Fire Behavior Analyst to create fire models. Fire modeling is a computer-generated graphical representation of the anticipated fire behavior given a well-defined set of parameters. These fire models were performed in two separate locations; one in Ukiah and one in Brooktrails. The locations and burning conditions were chosen based on current and expected weather conditions, existing fuel types, and past fire history. The sites chosen are densely populated and would cause an evacuation order to be issued.

Emergency Evacuation Preparedness Plan

The Emergency Evacuation Preparedness Plan describes the strategies for managing evacuations which exceed the day-to-day capabilities of the various public safety agencies in Mendocino County. This Plan was developed in collaboration with key stakeholders, emergency responders, transportation agencies and local and tribal governments. This plan has the ancillary benefit of being applicable to non-fire related threats as well.

The Plan is constructed as an Annex of the Mendocino County Emergency Operations Plan (EOP). The EOP serves as the primary guide for coordinating and responding to all emergencies and disasters within the County's jurisdiction. Consequently, both plans comply and integrate with local city plans and ordinances, state law, and state and federal emergency planning guidance including the Standardized Emergency Management System (SEMS), National Incident Management System (NIMS), the Incident Command System (ICS) and the National Wildfire Coordinating Group (NWCG).

In order to gain a thorough understanding of both the past and current situation, CFPC conducted interviews with the first arriving fire officers, sheriffs/OES commander, on scene Caltrans managers, County engineer/DOT, and senior County executive staff that were involved in evacuations that resulted from the Redwood Fire and Mendocino Complex Fires. In addition, the consultant reviewed after-action-reports, newspaper and internet reports, and other documentation that enabled CFPC staff to gain a full understanding of how the evacuations were carried out and the problems that were encountered.

The Evacuation Plan developed is broken down into seven parts:

- Emergency Evacuation Quick Guide
- Overview
- Planning Areas
- Evacuation Management
- Considerations and Guidance
- Area Specific Evacuation Zones and Guidelines

- Post Evacuation

The following key points are covered in detail:

- Authority to issue evacuations
- Evacuation management decision points
- Incident Command Posts/Emergency Operations Centers
- Alerting the evacuation area
- Evacuation assistance
- Management of Vulnerable Populations
- Evacuations involving schools
- Pets and livestock evacuation
- Organizational Responsibilities
- Resource management
- Repopulation Plan
- Plan implementation
- Plan maintenance and updating

Consistent with the Fire Vulnerability Assessment, the Emergency Evacuation Plan utilizes the Planning Areas developed for the CWPP. The size, climate, topography, fuels, fire protection resources, and access issues of each planning area are outlined in order to assist emergency managers in an evacuation effort. Within the guidelines, 69 pre-identified area specific evacuation zones are delineated and mapped. Evacuation routes (traffic control/choke points, potential reverse lane flow), areas of safe refuge, vulnerable population locations, critical infrastructure, transportation facilities and assets, and area specific concerns are delineated.

Recommendations

Throughout the course of developing this Wildfire Vulnerability Assessment and the Emergency Evacuation Plan, the consultants have noted areas where the community can lessen its risk to a significant wildfire threat and minimize loss of life and property. Subsequently, the following 34 recommendations (listed at the end of FVA) are offered:

A. Emergency Alerting Systems

The web-based survey distributed at the start of this project shed light on the fact that a large number of respondents are either unaware or confused about the County's MendoAlert and Nixle systems. Two-thirds of respondents have not enrolled and many claim these notification systems do not work or fail when the power is down.

Recommendations-Emergency Alerting:

1. Have the Office of Emergency Services expand its efforts in educating the general public about local alerting systems, how and when they are used, and how to sign up. This can be accomplished through the Public Safety Announcement Program (*described below*) in addition to educating the general public by enclosing flyers in the various utility bills (PG&E, water) or through sending out postcards.
2. Have the County Office of Emergency Services investigate why the alerting system does not appear to work during power outages.

B. Codes and Ordinances

Mendocino County has amended the California Building Code allowing for Class K Construction. The Class K Building Ordinance exists to provide minimum requirements for limited density rural dwellings and appurtenant structures and to permit the use of ingenuity and preferences of the builder.

Recommendations-Codes and Ordinances:

1. The Board of Supervisors should direct the Planning and Building Services Department to amend the existing codes and ordinances to require that all new construction:
 - Provide for emergency on site water storage for fire protection
 - Cover all rain gutters with non-combustible leaf shields
 - Require only non-combustible fences and decks
 - Require enclosed eaves on all structures
 - Install fireproof vents on all structures (California Fire Code, Chapter 7A-Listed Vents)

It should be noted that at this time, amending the current code as described above will have limited financial impacts given that new development is currently limited.

2. The County Planning and Building Services Department should support and encourage all regulatory agencies with fire prevention responsibilities to aggressively enforce the existing codes and ordinances.
3. The County Planning and Building Services Department should develop a policy that directs staff to notify all fire agencies of building permit applications that involve new structures, change in structure size, change in occupancy, and/or involve any manufacturing or processing operations.

4. As revisions of the County Safety Element and Multi-Jurisdictional Hazard Mitigation Plan are currently in process, County Planning staff should identify residential developments in any hazard area that doesn't have at least two emergency evacuation routes. Their location, capacity, safety concerns, and viability should be reviewed and identified under a variety of emergency situations. In addition, it would be beneficial to identify and analyze all existing abandoned routes connecting to developments for potential as emergency access.
5. Working with the Brooktrails Township and the Sherwood Firewise county staff explore the possibility of developing a new procedure to "condemn" or otherwise take public ownership of abandoned vacant lots or properties in the Brooktrails Township in order to allow for vegetation management.

C. Roads/Streets Naming and Addressing

Throughout the County, there exists hundreds of residences that are located on roads that are unnamed or have duplicate or similar sounding names. For the emergency services community, these issues can result in extended response times and critical delays in providing service. The potential for confusion and delays during an emergency evacuation is evident.

On February 4th, 2020, the Board of Supervisors (BOS) provided direction to streamline the process for renaming private roads in unincorporated Mendocino County at the behest of local residents, the Mendocino County Sheriff's Office and local Fire Chiefs.

As directed by the BOS, County staff is working to identify the most effective pathways to update this procedure. Within Mendocino County, 'Name of Roads' is regulated by Code Section 18.16.070. Under these regulations, there are many aspects that complicate the renaming of private roads, including but not limited to the required petition approval percentage and the application fee.

As of April 2020, County staff has not yet had an opportunity to reply to the Board of Supervisors' request at a public hearing due to the COVID-19 pandemic occurring. Presently, the County is preparing revised procedures that would allow for Local Fire Departments and the Mendocino County Sheriff's Office to identify a designated number of private road segments to rename each year. In these situations, the County would waive the fee and petition requirements, or process per Mendocino County Code Section 18.16.070(C). Issues related to time-compensation, road name selection, appeal procedures, hearing body/officer selection, and notification of property owners remain outstanding, and will need to be addressed prior to finalizing this update. County staff expects to respond to the BOS directive by the Fall of 2020 and commence road renaming in conjunction with the Sheriff and Local Fire Departments in early 2021.

Recommendations-Naming and Addressing:

1. Following review by County Counsel and County Planning and Building Services regarding streamlining and updating procedures for street name changes, the County Board of Supervisors should adopt the proposed changes regarding fees, naming, renaming, and addressing roads in the County.
2. Upon adoption by the County BOS, local area fire chiefs should work aggressively to name, rename, and address the roads, both private and public, in their individual areas of responsibility. Additionally, chiefs should continue to develop GIS electronic maps with GIS information and GPS coordinates to alleviate some of the street addressing problems.

D. Access

As described in the FVA, there exists in the rural portions of the County a large number of small, often private roads leading to subdivisions and remote homes, ranches, and outbuildings. In the more populated regions of the County, there are a number of neighborhoods, large subdivisions/estates, small communities and rancherias that are served by secondary roads that are also narrow, windy and occasionally steep. Many of these roads serve as the only way in and out. These roads can be severely impacted by wildfire, blocking safe access.

New Alternate Access Routes

These areas/roads when engaged in wildfire present a considerable life risk to both the general public and responding firefighters. Providing secondary access to these areas can be accomplished in one of two ways: construct new roads or improve existing undeveloped roads. Challenges associated with new construction include:

- **Topography-** The steep mountainous terrain in a number of these areas does not readily allow for new road construction.
- **Environmental Concerns-** Roads and road construction cause significant environmental damage and are disruptive to wildlife. Thus, permitting and mitigation processes are onerous.
- **Financial-** New road development is costly to construct and maintain given the areas topography and environmental issues.

The County Engineer, long ago, realized the need for a new secondary access out of the Brooktrails area and subsequently completed the necessary preliminary studies on a project to construct a “full service” two-way road out of Brooktrails to Highway 101, north of Willits. This project lacks the substantial funding required to obtain the necessary property and construction

costs. In discussions with area Fire Chiefs and the County Director of Transportation, this consultant found no immediately viable opportunity for new road construction.

Improving Existing Alternate Access Routes

For the reasons noted above, the development of existing unapproved or undeveloped roads is more cost efficient and practical than constructing new roads. However, there are still challenges associated with this approach including:

- **Private Property**- Many property owners are either reluctant to sell or allow easements across their land, even for “emergency use” only.
- **Liability**- Most property owners are not willing to accept the liability of the public crossing their land, especially in the event of a wildfire.
- **Public Funds**- Paying for private road improvements with public funds is considered a “gift of public funds” and is illegal.

The County’s Fire Chiefs and the Director of Transportation (County Engineer) thoroughly understand and support the need for secondary access routes out of populated areas. The Chiefs have studied their local areas of responsibility in search of possible solutions, identifying a number of potential projects, which are described below.

- **Tomki Road/Cave Creek** - Construct all-weather creek crossings (9) and road improvements for Tomki Road/Cave Creek, which is located north of Redwood Valley. The primary objective of this project is to improve water quality in Cave Creek which has been degraded by vehicle traffic across the wet fords on Tomki Road. Currently, this road becomes impassable during the high-water flows experienced during most winters. If completed, an associated benefit would be year-round access between Redwood Valley and Little Lake Valley.
- **Masonite Haul Road** - The Anderson Valley Fire Chief advises that the potential exists for the use of this road, which transits from Ukiah to the coast at Highway 128, for emergency use only. Historically, emergency responders have been allowed to use this road, however recently, the Mendocino Redwood Company has denied access.
- **Mitchell Creek Drive - Gibney Lane** - The Fort Bragg Fire Chief has initiated this project, which opens up and improves an existing road “for emergency use only” in cooperation with the property owner and CAL FIRE. The goal is to have the road completed in the summer of 2020.

- **Navarro and Albion Ridge Road** - The Albion-Little River Fire Chief believes the potential may exist to negotiate with the property owner for the use of an existing road for “emergency use only” from the Navarro Ridge Road to Highway 128.
- **Redwood Valley Rancheria** – Representatives from the Redwood Valley Band of Pomo Indians report the possibility of developing an “emergency use only” road from the end of the cul-de-sac on Redwood Drive across Deer Creek, which is located on land not owned by the Tribe to County Road J.
- **Brooktrails Area** - There exists a number of nonresidential roads, private roads that serve as utility easements, timber haul, and recreational purposes in the Brooktrails area. They are single lane, dirt/gravel surfaced, and passable in the dry season only. In June of 2019, a Board of Supervisors Ad Hoc Committee and County Supervisor performed a cursory survey of the two roads with the most potential for “emergency use only.” They are:
 - The FirCo Haul Road which traverses 2.25 miles of private properties from Poppy Drive, about a mile northwest of the Willits Airport, to Highway 101 approximately 3 miles north of Willits. In 2019, CAL FIRE crews completed an extensive fuel reduction project along the FirCo Haul Road. The property owner has conditionally approved the use of this road for “emergency/public safety vehicles use only”.
 - The Willits Creek Trail (aka Summer Lake Road or Bates Lane), also referred to as the sewer easement road, traverses 2 miles of private property from Birch Street in Brooktrails to Mill Creek Drive in Willits.

On June 16, 2019, a report titled “Preliminary Opinion of Existing Condition, Actions Necessary to Meet Current Development Standards, Costs and Practical Factors” for these two roads was produced. The report concluded that with some minor improvements and waiving of some Resource Code standards, these roads could be utilized by public safety vehicles only. The report also outlines the improvements needed to make the roads suitable for both “one way only” and “two-way” traffic on a dirt, light duty, and restricted/controlled use by the general public.

It should also be noted that a number of roads are frequently mentioned by the general public as potential options for secondary access in different parts of the County. This consultant has reviewed those options and reports as follows:

- In the Brooktrails area, Sherwood Road transits from Willits, through the Brooktrails Township, all the way to Laytonville a distance of approximately 30 miles. From Willits to Sherwood School, it is fairly straight but narrow. It is well paved but, in some places,

quite steep. Past Sherwood School, it becomes very narrow and windy as it passes through the mountains terminating at Laytonville. Additionally, another non-maintained and rough road, the Fort Bragg-Sherwood Road, transits from Sherwood Valley just north of Brooktrails to Fort Bragg. In the winter, these roads are often impassable.

- The Williams Ranch Road, a private road, once served as a secondary access to the Black Bart Subdivision located south of Willits near Ridgewood Summit area. Recent winter storms caused a significant portion, 1/8 of a mile, to slough off into the creek below. The repair costs are significant and the property owner is unwilling to make them.
- In the Ridgewood Subdivision area, a series of old logging roads, Mariposa Creek and Old Boy Scout, transit from the east portion of the subdivision over the top of the ridge and down to Tomki Road or Highway 101 via Willits Watershed Road. The combination of the travel distance, and the windy and narrow conditions make these roads unacceptable as potential secondary access routes.

Recommendations-Existing Access Route Improvements (prioritized):

1. Complete the “Emergency Access Route” in the Mitchel Creek Drive – Gibney Lane area of Fort Bragg. The Fort Bragg Fire Chief has initiated this project, in cooperation with the property owner and CAL FIRE. This project opens up and improves an existing road. The goal is to have the road completed in the summer of 2020.
2. The County of Mendocino should continue to explore funding mechanisms for the “full service” second access road from the Brooktrails community, as designed by the County Engineer. In the interim, the Brooktrails Township CSD should continue their efforts in improving both the FirCo Haul Road and the Willits Creek Trail as “emergency use only” access roads for ingress by emergency response vehicles and egress by the general public if directed by the Sheriff/OES or the Incident Commander.
3. The Mendocino County Board of Supervisors should continue to support the work of staff and Sherwood Firewise in the development of a new Benefit Zone under County Service Area 3. This would provide a funding source for ongoing route maintenance through property tax payments made by local property owners who would benefit from the routes.
4. The Board of Supervisors should direct the County Office of Emergency Services to initiate negotiations with the Mendocino Redwood Company for the use of the existing Masonite Industrial Road as an “Emergency Access Route” road.
5. Support the efforts of the Albion-Little River Fire Chief in the development of a secondary access road in the Navarro and Albion Ridge areas.

6. Support the efforts of the Redwood Valley Rancheria in developing an “Emergency Access Route” from the end of the cul-de-sac on Redwood Drive across Deer Creek to county Road J.
7. The County of Mendocino should continue to explore funding mechanisms for the all-weather creek crossings and road improvements for Tomki Road, as designed by the County Engineer.
8. Each spring, the responsible fire agencies should survey the primary and alternate emergency evacuation routes in their jurisdiction to ensure their continued availability.

E. Transportation Asset Improvements

In an interview with the County Director of Transportation, this consultant learned of no areas where the existing County road or State Highway transportation systems could be easily improved considering the difficulties outlined above. However, the Director has been successful in making improvements to, or replacing, a prioritized list of County bridges on rural roads serving as exit corridors. Fire equipment, especially water tenders and bulldozer transports, are very heavy often exceeding the carrying capacity of rural bridges. This equipment is vital in controlling fires when they are small, reducing the need for large scale evacuations. It is important to note that grant funding for bridge improvements/replacements is more readily available than funds for road improvements.

Street/Road Maintenance Yards are the storage areas for many items vitally important to an orderly evacuation effort. Examples of items stored there include: message boards, barricades, heavy equipment for clearing of roadways. The consult has recorded, in the Emergency Evacuation Plan, the location of the various maintenance yards located throughout the County. It should be noted that all maintenance yards, with the exception of two, are either safely located in areas not vulnerable to wildfire or are adequately protected by clearance and/or non-combustible construction. The Caltrans Yard in Manchester is well constructed of modern, non-combustible materials. However, directly across the Highway 1 yard entrance, as well as along the north side of the yard, there exists a stand of dead trees. Should these trees catch fire, access to the yard would be compromised. The Caltrans Yard in Leggett is surrounded by heavy timber and is very vulnerable to fire. The facility is old and long range planning should include finding a more suitable location.

Recommendations-Transportation Asset Improvements:

1. The Board of Supervisors should continue to support the County Director of Transportation in his efforts to improve rural bridges within the County, especially those found in wildfire prone areas.
2. Caltrans should remove the dead standing trees on the property across from the entrance and along the north side of the Manchester Maintenance Yard.
3. Caltrans long-range capital improvement plans should include moving the Leggett Maintenance Yard to a more suitable location.
4. Given the enormous expense associated with moving the Leggett Yard to a less vulnerable location or modernizing and retrofitting the existing facilities with a fire sprinkler system, the consultant recommends that Caltrans limit the storage of essential evacuation equipment at this facility.
5. OES should conduct a yearly fleet survey of all MTA and School District buses and vans that includes the inventory and the type of fuel used (gas, electric, or diesel).

F. Transportation Agreements

The County Evacuation Plan utilizes the Mendocino Transit Authority (MTA) and school district buses and vans to aid in the evacuation effort. There are currently no transportation agreements in place. Having pre-established agreements will expedite these requests. While a number of small charter bus companies are available in the County, this consultant believes the resources of, first the MTA, and then the school districts are more than adequate to fill emergency evacuation/transportation needs of the County.

The recent advances in electric vehicle (EV) technology coupled with aggressive state and federal grants for electric buses and vans has and will continue to increase the number of electric buses and vans in transportation fleets. EV buses and vans present several operational challenges for emergency evacuation operations including limited range and extended charge times.

Recommendation-Transportation Agreements:

1. The County Board of Supervisors should direct the County Office of Emergency Services (OES) to develop and enter into an agreement with the Mendocino Transit Authority and the School Districts for the emergency use of buses and drivers for evacuation purposes for carless populations, skilled nursing facilities, correctional facilities and hospitals. Additionally, emergency evacuation training of all bus drivers would be optimal.

G. Vegetation Management

CAL FIRE's Vegetation Management Program (VMP) is a cost-sharing program utilizing prescribed fire, and mechanical means, for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. The use of prescribed fire mimics natural processes, restores fire to its historic role in wildland ecosystems, and provides significant fire hazard reduction benefits that enhance public and firefighter safety. CAL FIRE also administers several state and federal forestry assistance programs with the goal of reducing wildland fuel loads and improving the health and productivity of private forest lands.

The Mendocino County Fire Safe Council (MCFSC) works to identify important local fire preparation projects and works to seek grant funding to enable them. Additionally, the MCFSC oversees local fire safe councils and works to obtain grant funding for vegetation reduction and other wildfire mitigation projects.

Recommendations-Vegetation Management:

1. The Board of Supervisors should continue to support the work of the Mendocino Fire Safe Council by again providing funding for staff in the 2021 budget cycle. This community-based effort is a very efficient and cost-effective way to manage the wildfire fuel load throughout the County and the continuity of staff is critically important in achieving the MCFSC's goals.
2. The Mendocino County Community Wildfire Protection Plan should be updated. However, this does not need to be a standalone effort. The MCFSC should coordinate with CAL FIRE and the Fire Chiefs Association to identify the most efficient ways to use the data those organizations already gather in order to update and prioritize the fuel reduction projects currently outlined in the outdated CWPP.
3. Maximizing the safety of transportation corridors for Mendocino County's isolated populations/populations with limited egress is a critical priority. The most important of these projects is the Sherwood Road exit corridor through Brooktrails. Additionally, the following transportation corridors are also in need of fuel reduction. Please note that grant objectives must be aligned with specific fuel modification projects, making prioritization of individual projects challenging.
 - Ridgewood Road - Pine Mountain Subdivision – east of Willits
 - Nakomis Road - Hopland Rancheria
 - Williams Ranch Road – Black Bart Subdivision south of Willits
 - Pepperwood Springs Road – Piercy

- Red Mountain Road – Piercy
 - Bell Springs Road – Piercy
 - Mill Creek Road – Talmage
 - Multiple east and west side Ukiah Valley roads not covered by the current Ukiah Valley Fire Fuels Reduction Project
 - Orr Springs Road
 - Greenfield Ranch
 - Spyrock Road (including Registered Guest Road, Iron Peak Road, and Blue Rock Road) is inhabited by approximately 2,000 people living in various types of homes. (CAL FIRE Battalion 4)
 - Ten Mile Creek has approximately 200 residents. (CAL FIRE Battalion 4)
 - Bear Pen subdivision contains 18 homes. (CAL FIRE Battalion 4)
 - Ebert Lane is a narrow road accessing 11 homes; its vegetation includes not only brush and saplings but also timber. (CAL FIRE Battalion 4)
 - Pepperwood Springs subdivision has approximately 20 homes. (CAL FIRE Battalion 4)
 - Cherry Creek subdivision, which currently contains about 30 homes, is becoming a very popular area for new construction. (CAL FIRE Battalion 4)
 - Mulligan Lane contains areas of brush that need to be removed. (CAL FIRE Battalion 4)
4. The MCFSC should continue to work collaboratively with CAL FIRE, local fire departments, the County and neighborhood groups in the development of an ongoing system of “Neighborhood Chipping Day” programs.
 5. The MCFSC should continue to refine and develop its current “Defensible Space” program for County residents. Four public forums on defensible space, one in each mutual aid zone of the County, should be held in the Summer of 2020.

H. Incident Command Posts – North Coast

Communications along Highway 1 north of the small community of Inglenook are very problematic. Cell phone and radio service (both law and fire) is available on a hit or miss basis all along the Highway 1 coast. Currently, responding emergency units will search for a spot along the road where they can get both cell phone and radio coverage. They will park there, and then the spot becomes a Command Post by default. Frequently, there is not enough room for incoming units or agencies, so another spot is located and put into service. Fire units will typically land in one spot and law enforcement in another. Emergency events that require response from a variety of agencies need to be managed from a single unified Command Post.

Recommendations-Incident Command Posts:

1. The County Office of Emergency Services should explore the possibility of developing a pre-identified command post on Highway 1 in the vicinity of Newport. The first step would be to test the fire and law radio system and cell phone coverage from a variety of suitable command post locations. Potential sites include the large field directly south of the Westport Fire Station on the east side of Highway 1 and the field adjacent to the Inn at Newport Ranch at 31502 N. Highway 1.
2. Once identified, County OES should designate the site(s) as a Command Post in the appropriate County, fire service and law enforcement plans and policies.
3. The County should improve the site with all-weather access and parking, and an establish a connection point for hardwire phone connections.

I. Public Outreach

To develop communities of prepared and informed residents, a coordinated approach needs to be taken amongst local fire departments and local government agencies. The County has a number of Public Information Officers with varying degrees of training yet there is no Public Information Plan. The development of a Public Information Plan will enable PIO's to provide a clear, cohesive response throughout the County. Additionally, as firefighters tend to be well respected in their communities, it is advantageous for local fire departments to provide year-round education to citizens about preparing for wildland fire threat and creating situational awareness. A plan has been designed outlining how throughout the year, participating public safety organizations can take turns providing seasonally appropriate public safety message for the entire County.

Recommendations-Public Outreach:

1. The County Executive Officer should direct the County Office of Emergency Services to develop a Public Information Plan. All individuals throughout the County with PIO responsibilities should be trained on this plan.
2. The County Office of Emergency Services should be the PSA program manager or seek a volunteer agency to manage the program.
3. The County Office of Emergency Services should encourage the Fire Chief's Association, the Fire Safe Council, and other key stakeholders to adopt the Public Safety Announcement Program as outlined in the Public Outreach Plan.

Conclusion

An action plan (located at the end of the FVA) has been developed which delineates the 37 specific recommendations, identifies the responsible party, potential funding sources and assigns a target completion date.

In closing, these plans demonstrate the tremendous progress that is made when local public service and government agencies work together towards a common goal. These completed plans bring Mendocino County significantly closer to reducing their wildfire risk to residents and property while also providing clear and concise guidelines for first responder agencies when an emergency evacuation is needed.