

## **WILDFIRES – PARTNERS IN PREVENTION**

### **SUMMARY**

Marin County is at risk of a repeat tragedy such as the Mt. Tam fire in 1929, the Oakland Hills fire in 1991 and the Inverness Mt. Vision Fire in 1995. The Grand Jury explored what actions the previous wildfire wake-up calls have produced.

About 40% of Marin's total 333,000 acres of land are in public ownership, much of it contiguous to privately held properties at the edge of the urban-wildland interface. The remaining 60% is privately owned.

The partners are responsible to protect and try to prevent a potentially devastating wildfire in both our public open spaces and our privately-owned real estate:

- The public sector is represented by local and state agencies: the Marin County Fire Department (MCFD), 13 other local fire departments and special districts, and the California Department of Forestry and Fire Protection (CDF).
- The nonprofit sector is represented by FIRESafe Marin, an organization that both encourages communities to collaborate when trying to solve problems related to wildfire prevention and acts as a conduit for public and foundation grants.
- Private property owners are an equally critical component in this partnership. Owners are required by state law to create and maintain defensible spaces around their properties.

Local firefighting agencies use four main strategies to mitigate wildfire danger: mutual aid agreements, vegetation management efforts, public information and education programs, and citations against private property owners who do not comply with defensible space laws. Not everyone agrees on which strategies are best, controlled burns are particularly controversial.

The Grand Jury found that local firefighters, since the early 1990s, have made significant strides in vegetation management, public education and intra-agency cooperation. Areas of weakness still exist. They are: lack of consistent enforcement of defensible space laws against property owners and failure to use controlled burns when mechanical tactics are otherwise inappropriate. The situation is exacerbated by shrinking financial and labor resources to control our ever-growing vegetation.

In most cases the public is cooperating. Working together, our public and private partners can reduce potential loss of property and life from a disastrous wildfire in Marin. Philosophies may vary, but the ability to succeed boils down to all doing their part in this partnership to help keep the wrath of Mother Nature under control.

The Grand Jury recommends aggressive enforcement of defensible space laws; stepped up public education programs aimed at children and wild-fire vulnerable neighborhoods; limited, targeted controlled burning when appropriate; establishment of a state Department of Corrections inmate camp in either Marin or Sonoma as an additional labor pool; and a mechanism for all agencies involved in firefighting to identify and implement county and state best fire prevention practices.

## **BACKGROUND**

2001-2002 was one of the most devastating wildfire years on record in the Western U.S. Marin is considered one of the most vulnerable at-risk fire counties in the state. Marin citizens are concerned about our ability to fight a potentially deadly wildland fire in our many acres of open space abutting occupied property.

Marin County particularly is at risk for tragedies such as a repeat of the Mt. Tam fire in 1929, the Oakland Hills fire in 1991 and the Inverness Mt. Vision Fire in 1995. About 40% of Marin's total 332,928 acres of land are in public ownership, much of it contiguous to privately held properties at the edge of the urban-wildland interface.

Several Marin County Grand Juries have issued reports about the county's disaster preparedness and ability to respond effectively to countywide emergencies. Reports in the early 1990s acknowledged that a major wildland fire, especially on Mt. Tam, could pose a serious threat to both life and property. In 1991 the Marin County Grand Jury issued a report, "Controlled Burns on Mount Tamalpais."

As we enter another wildfire season, the Grand Jury explored what recent actions have been taken to minimize the risks for another devastating fire in Marin.

## **METHODOLOGY**

The objective of this Grand Jury investigation was to understand the issue, and articulate and inform Marin residents about wildfire risks and mitigation efforts. The county, cities, water districts, state and federal governments have vast tracts of open space, much fuel-loaded forest and grass wildlands, and many acres of them immediately adjacent to houses. There are multiple fire agencies involved in fire protection. The report focuses on our fire departments and their prevention and response capabilities to fight wildland fires, especially in the wildland / urban interface zones.

The Grand Jury asked the following questions:

1. How are these multiple county, city, special district and other agencies coordinating their efforts. What mutual aid agreements are in place among the various county, city, water district, state and federal agencies for wildfire fighting?

2. How are fuel loads managed and reduced to safer levels? What still needs to be done to lessen the possibility of another wildland / urban interface catastrophic fire? How are fuel loads being reduced in high hazard zones such as Mt. Tam, Marin Municipal Water District lands, Pt. Reyes Seashore and the Golden Gate National Recreation Area, Marin Open Space lands? Are there more efficient and cost-effective ways to manage vegetation hazards?
3. What education programs and community-based organizations are in place, and how can the good ones be replicated?
4. What are property owners' legal responsibilities regarding vegetation management on their private properties? Are the laws being enforced by the various fire departments?

The Grand Jury interviewed representatives from the following:

- Marin County Fire Department
- Novato Fire Protection District
- Mill Valley Fire Department
- Marin County Department of Parks, Open Space and Cultural Services
- Marin Municipal Water District
- FIRE*Safe* Marin
- A group of Marin residents who are concerned about prescribed controlled burning

The Grand Jury was impressed by the dedication of our firefighters and their progress in developing strategies and mutual aid alliances to protect and defend our beautiful lands and homes.

## **DISCUSSION**

It's a hot day late in October and a strong wind is blowing from the northeast – perfect conditions for a devastating wildfire. All of Marin's firefighters are on highest alert.

According to the Mill Valley Fire Department, the 1929 Tam fire destroyed 116 homes in Mill Valley. A similar fire today on such a hot October day would destroy 850 homes. In 1929 there were an estimated 12 tons of burnable vegetation per acre vs. the current fuel load of 25 tons per acre. A major wildfire on Mt. Tam is a real threat.

As fewer buildable lots become available in Marin, inevitably new homes are being built in increasingly vulnerable sites – closer to wildlands and with poorer access roads. Mill Valley, Corte Madera, Larkspur, Kent Woodlands, San Anselmo, Ross, Fairfax, Novato, Woodacre and parts of West Marin especially appear vulnerable, although other communities are also at risk.

## **THE PARTNERS:**

### **1. Marin County Fire Department (MCFD)**

The county fire department is the principal firefighting agency for Marin lands under local, water district, state and federal control. The department is the firefighter for the Marin Open Space District (MCOSD) and the Marin Municipal Water District (MMWD) lands. Also MCFD is hired by the state to protect Mt. Tam, Samuel Taylor Park and other state-owned property, and by the federal government, Marin's largest landowner, to protect Pt. Reyes National Seashore and the Golden Gate National Recreation Area.

The MCFD is responsible for implementing the county's fire management plan. It is the lead agency in any fire that is not within the boundary of another fire department or special district. It also is the primary interface with the California Department of Forestry and Fire Protection (CDF), and is the conduit for state and federal wildfire funds.

The MCFD is commended for having several experts on staff. In addition to their specialties, these staff members are professional firefighters.

The MCFD employs a forester, who is important during this era of Sudden Oak Death disease. The dead trees have added to the fire fuel load and endanger our fire fighters exposed to falling branches.

The department also has a staff member who uses state-of-the art technology, called a Geographic Information System (GIS), to map the urban-wildland interfaces, and to simulate wildfires and predict loss of property.

The Grand Jury notes that several disparate GIS projects are under development in various county departments. GIS is a very powerful tool that can map multiple layers of information such as parcels, utilities, topography, vegetation, land use and many other bits of information. The main county-wide project is housed in the Community Development Department. The MCFD GIS information currently is not integrated with community development's project. The Grand Jury suggests that the departments collaborate and coordinate their efforts.

### **2. Marin Fire Departments and Fire Special Districts**

There are 13 other fire departments and fire special districts in Marin. They act as the lead agency when a fire breaks out in their jurisdiction. They are responsible for vegetation management, public education and enforcement of defensible space laws.

### **3. Marin Municipal Water District (MMWD)**

The MMWD manages about 23,000 acres of watershed lands. It has no fire department of its own and contracts with the Marin County Fire Department for fire services.

### **4. Marin County Open Space District (MCOSD)**

MCOSD manages about 12,500 acres of park and open space lands. It has no fire department of its own. It also contracts with the Marin County Fire Department for fire prevention services.

## **5. FIRESafe Marin**

A nonprofit agency formed in 1991 in response to the Oakland Hills fire, FIRESafe Marin promotes fire safety and collaborates with communities to solve problems related to wildfire prevention and protection. It also acts as a conduit to the county for state, federal and foundation funds for fire prevention programs.

## **6. Neighborhoods**

Several fire agencies and FIRESafe Marin have collaborated successfully with neighborhoods and communities in fire prevention projects. Neighbor to neighbor peer pressure seems to work.

## **7. Private Property Owners**

Property owners play a key role in protecting Marin from a wildfire disaster. Wildfires likely will happen. However, property owners who create and maintain defensible space around their property give our fire fighters a fighting chance to protect their own or their neighbors' homes.

## **THE STRATEGIES:**

Many strategies are in use to educate the public about fire dangers and to mitigate fire hazards. Some fire departments emphasize education. Others emphasize vegetation management. Citations against property owners are rarely issued. These and other strategies are described below.

### **1. Mutual Aid**

Strong mutual aid agreements are in place among local firefighting agencies and the county, the CDF and various federal agencies.

All fire agencies in the county have agreed to mutually support each other and to put into play all assets (equipment and labor) at no cost to the other departments.

In addition, the county will receive assistance from the federal U. S. Forest Service, the National Park Service, the Bureau of Land Management and the CDF if a major wildfire breaks out.

Under a new Federal Emergency Management Agency program, the county will be reimbursed 75 cents spent on every dollar over \$18,000 to fight a wildfire.

### **2. Vegetation Management**

All agencies including our fire departments and districts, the MCOSD and the MMWD that were interviewed by the Grand Jury do aggressive manual and mechanical vegetation reduction. Some, in addition, use very limited controlled burns.

For instance, the MMWD conducts 2 to 5 controlled burns per year totaling 120 to 200 acres to manage non-native vegetation and keep fire roads accessible. These burns are performed by the MCFD. The MCOSD performs no controlled burns.

To reduce fire fuel loads, some agencies supplement their own staffs with labor by the county-employed Marin Conservation Corps. Others, in addition, contract for the services of low-risk inmates from the California Department of Corrections, who are deployed from Suisun City in the Delta, but can only put in about five hours of work after transportation time is built in.

All interviewed want to use a state Department of Corrections inmate crew housed in Marin or Sonoma. Our firefighters prefer the labor of low-risk, non-violent prisoners because they seem to work harder than our county-paid Conservation Corps. Prisoners can earn good behavior points and possibly lower their jail time.

The Grand Jury asked what it would cost to develop and maintain a state Department of Corrections inmate conservation camp facility, that could provide manpower to supplement local first responders in the event of a wildfire, earthquake or other emergency. It received a response suggesting a 120 inmate camp would cost \$8 million to develop at the Two Rock Coast Guard station in Sonoma county plus an additional \$1.2 million in vehicles and equipment. Annual operating costs would run \$2.4 million.

Sudden Oak Death Disease has created a new vegetation management problem. It has added a lot of dead material to the fire fuel load and presents a hazard to our firefighters from falling limbs and branches.

The Grand Jury interviewed a group of concerned citizens about controlled burning. This is the same group that fought aggressively and successfully to stop controlled burning projects in the early 1990s. They feel strongly that the risks inherent in controlled burns far outweigh the advantages. Perhaps it is time for these concerned citizens to work cooperatively with firefighting professionals as the hazards become greater year by year.

The Mill Valley Fire Department places a strong emphasis on vegetation management and emergency access efforts. The Grand Jury considers Mill Valley its vegetation management model of those agencies interviewed this year.

### **3. Education Programs**

All agencies that were interviewed by the Grand Jury provide a significant number of fire prevention education and awareness programs. Many are aimed at children and youth – those who like to play with matches.

Community collaboration projects are emphasized by FireSafe Marin. It works with high fire danger communities, together with their firefighting professionals, to reduce fuel loads and educate neighbors as to risk. Neighborhood peer pressure can be crucial.

The Grand Jury reviewed educational brochures, public information presentations and other community outreach materials. These efforts are impressive.

The Novato Fire District places a premium on public education and collaboration projects. The Grand Jury considers Novato its public information model of those agencies interviewed this year.

#### **4. Private Property Owners' Preparedness**

Buildable lots in Marin are increasingly scarce. Marin residents continue to build homes that abut wildlands and are accessed by only narrow, winding roads. These properties are hard for firefighters to defend. Therefore, it is more necessary than ever for these property owners to clear hazardous vegetation around their homes, plant fire resistant gardens and meet building fire codes.

Also property owners should avoid blocking public streets that firefighters might need to reach a fire. They should make sure that their driveways have at least 11 feet of clearance to give fire trucks access to their homes.

Property owners are required under state law (Public Resources Code section 4291) to maintain a minimum 30 foot perimeter of defensible space around their homes on relatively flat lands. They should allow at least 100 feet on slopes greater than 30% and for those properties that are near open spaces. Fire departments can cite property owners who do not comply with these laws. Under the state Public Resources Code section 4291.1, first violations are infractions and incur fines from \$100-\$500; second violations range from \$250-\$500; third violations within five years are a misdemeanor with a fine of not less than \$550. Fire departments also can cite property owners for the cost of fighting a wildfire if they have not complied with defensible space laws.

Most of Marin's firefighting agencies are reluctant to cite property owners who violate this defensible space law.

## **FINDINGS**

1. Most fire agencies neither enforce defensible space codes nor cite private property owners who are in violation of the law.
2. All fire departments interviewed by the Grand Jury are involved in some form of public education about wildfire dangers and prevention. Several departments emphasize these programs.
3. The Marin County Fire Department, the Marin County Open Space District and the Marin Municipal Water District supplement their regular staffs with labor supplied by the Marin Conservation Corps and the state Department of Corrections inmate conservation camp located in the Delta. This additional labor pool provides valuable

assistance in vegetation management efforts. But the Delta-based group is limited in its usefulness by the constraints caused by long travel time.

4. Only a few fire agencies currently use limited controlled prescribed burns to reduce fire fuel loads on a selective basis.
5. The county forester, who works under the auspices of the Marin County Fire Department, is an important asset, especially in this era of Sudden Oak Death Disease. This tree disease has both added to the fire fuel load and endangers our firefighters.
6. The Marin County Fire Department is using sophisticated Geographic Information System software to analyze and model wildfire hazards and potential property losses.
7. Some jurisdictions have developed, and have in place, exemplary public education programs and vegetation management practices.
8. Private property is becoming increasingly difficult to protect as buildable land becomes increasingly scarce and homes are built on increasingly inaccessible sites that encroach on our Marin wildlands.
9. Peer pressure is an important element in bringing neighborhoods together to develop fire prevention practices.

## **RECOMMENDATIONS**

1. All local fire agencies should aggressively enforce defensible space codes and cite private landowners who do not comply with the law.
2. Local fire departments should step up education programs, especially those aimed at wildfire-vulnerable neighborhoods and at school-aged children, youth and teens.
3. The Board of Supervisors should lobby for a state Department of Corrections inmate conservation camp to serve Marin and Sonoma counties.
4. All local fire agencies should review their policies regarding controlled burns and use limited, targeted and carefully controlled burns when appropriate to mitigate fire fuel loads.
5. The Board of Supervisors should continue to fund the county forester.
6. The Board of Supervisors should continue to support the GIS program under the auspices of the Marin County Fire Department. The MCFD's GIS program should

be integrated with the countywide GIS project known as MapsMarin that is under the Department of Community Development.

7. All fire departments and special districts, the Marin County Open Space District, the Marin Municipal Water District and representatives from FireSafe Marin should meet frequently to identify and implement the county's and state's fire prevention and protection best practices. Fire agencies should model their education, enforcement and vegetation management programs around those that are both cost-effective and efficient.

## **REQUEST FOR RESPONSES**

Pursuant to Penal code section 933.05, the Grand Jury respectfully requests responses as follows:

- Board of Supervisors to Findings 3, 5, 6, 7 and Recommendations 3, 5, 6, 7
- Marin Municipal Water District Board to Findings 1, 3, 4, 7 and Recommendations 1, 3, 4, 7

Although not required by law, the Grand Jury also invites responses from:

- Chief, Marin County Fire Department, to all Findings and Recommendations
- Director, Marin County Open Space District to Findings 1, 3, 4, 7 and Recommendations 1, 3, 4, 7
- All Marin County fire department and fire special district chiefs to Findings 1, 2, 3, 4, 7 and Recommendations 1, 2, 3, 4, 7
- Director, Marin County Department of Community Development to Finding 6 and Recommendation 6

## **SOURCES**

Briefing papers prepared by Novato Fire Protection District, October 10, 2003.

Briefing paper prepared by citizen group, "Grand Jury Recommendations – March 27, 2003, Re: fire-preparedness in Marin."

"Marin County Fire Management Plan," prepared by the Marin Fire Department.

“Mount Tamalpais Area Vegetation Management Plan, Executive Summary,” prepared by Leonard Charles and Associates, San Anselmo, for the Marin Municipal Water District and the Marin County Open Space District, June 1993.

“Studies of Wildland Fires in Selected California Locations, Case Study 3,” University of California, Division of Agriculture & Natural Resources, December 1997.

## **GLOSSARY**

CDF: California Department of Forestry and Fire Protection

MCFD: Marin County Fire Department

MCOSD: Marin County Department of Parks, Open Space and Cultural Services

MMWD: Marin Municipal Water District