

## A: FIRE PREVENTION

The Wildland Urban Interface presents major concerns for fire prevention. Many homes are located in hazardous locations either in ignorance of, or in disregard for, fire prevention practices. Strict enforcement of California Public Resources Codes 4290 and 4291 will be necessary to correct the errors of past residential and commercial developments. Fire loss reductions must be gained through better fire safe planning, with participation by all political bodies and stakeholders.

The Fire Prevention Program of the CAL FIRE Mendocino Unit, including the Fire Prevention Bureau, Vegetation Management Program, and Pre-Fire Engineering, attempts to address the actual problems encountered and to plan for anticipated changes.

Unit prevention efforts include fair exhibits, burn and 4290 permit procedures, fire patrols, news media releases, public service announcements and outreach, school programs, structure and dooryard premises inspections, and membership in the Mendocino County Fire Safe Council. Fire prevention programs are coordinated to the greatest extent possible with local fire departments.

Each area of the Mendocino Unit, to a greater or lesser extent, will need to adapt to the ever-increasing population moving into and recreating in the wildland areas of the County, posing greater risks of fires and even greater expectations for all CAL FIRE response services. Through development, implementation, and ongoing reassessment of this Plan's priorities, the Mendocino Unit will be ready and steadfast in its ability to provide leadership in pre-fire management planning and in protecting the citizens of Mendocino County from destructive wildfires.

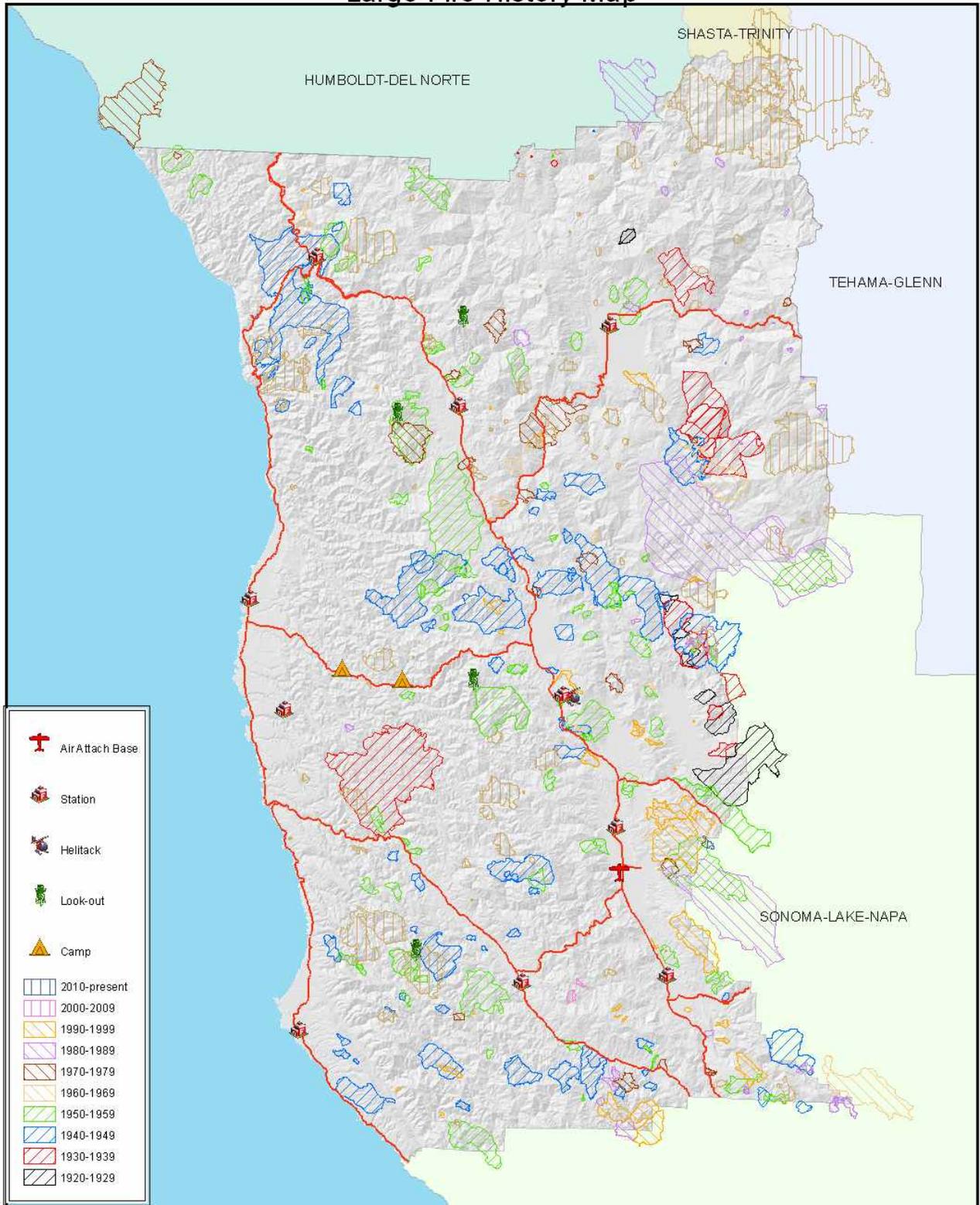
### ***HISTORY OF LARGE FIRES***

The following page contains a map of most of the large fires in the Mendocino Unit since 1922. This information can aid in understanding the potential for a large fire at any particular location and also help in determining areas where pre-fire management plans can be put to the best use. One thing this fire history makes clear is that, although the County has been spared large fires in the recent past, this Unit can and may sustain large, devastating wildfires. *Indeed, the lack of large fires for many years points to the likelihood of one or more happening in the near future.* To prepare and lower the risks now will benefit all stakeholders concerned.



# Cal Fire Mendocino Unit

## Large Fire History Map



Author: S. Zimmeraker  
2/8/11

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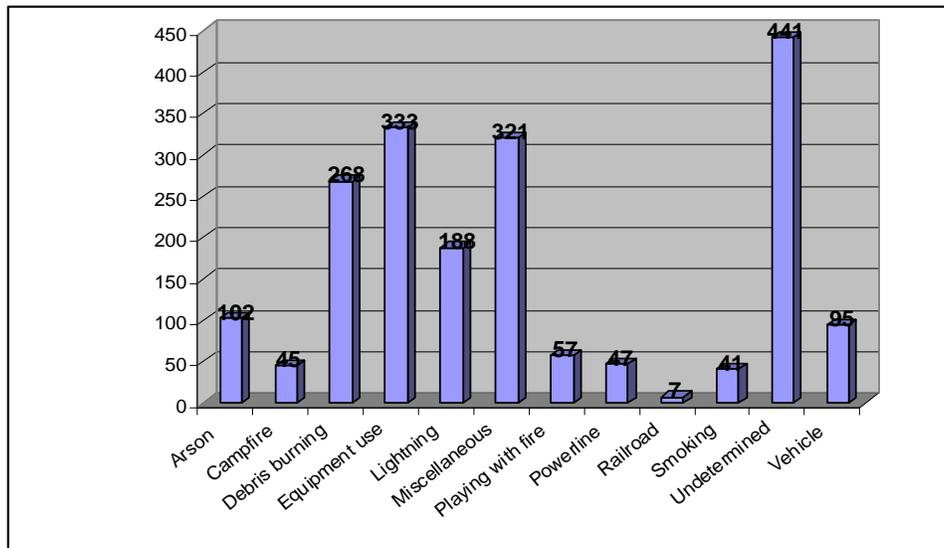


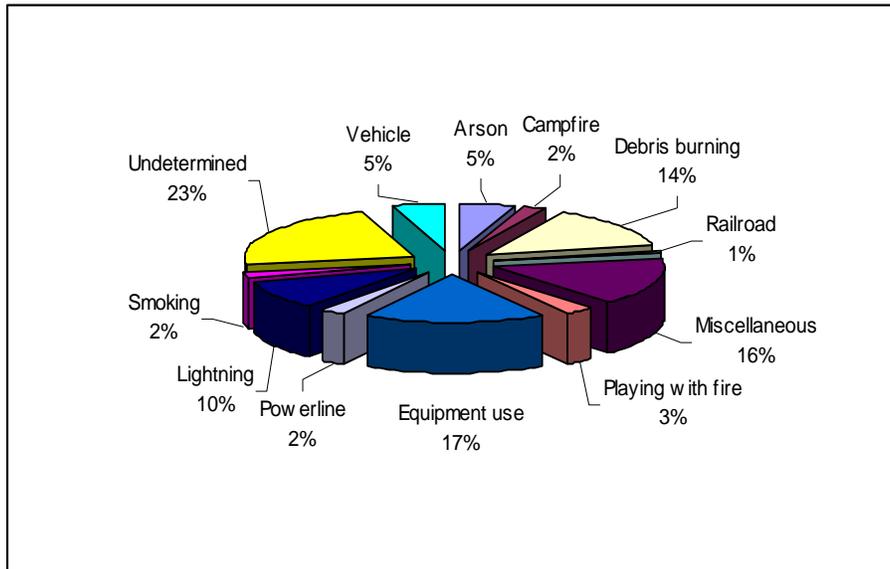
Due to reporting criteria and past mapping abilities,  
all fires may not be present.

## ***IGNITIONS AND INITIAL ATTACK SUCCESSES***

The largest single *known* ignition cause in the Mendocino Unit during the last ten years has been the use of equipment, at 17% of all ignitions. Debris burning comes in next at 14%. The following charts show the number and causes of wildfires for previous ten years. Most ignitions are associated with roads and areas of population density. Identifying ignition causes is an ongoing challenge, and results in many fires being undetermined or having several potential reasons for a fire's start. An example is determining if roadside ignitions were accidental due to cigarette butts negligently tossed from vehicles or were acts of arson. The need for accurate data to perform good analyses is crucial and the Unit personnel are committed to meeting this challenge. To accomplish this, Unit personnel are continuously training and attending classes to heighten their abilities to investigate fire origin and causes. CAL FIRE Unit suppression forces, working side-by-side with local fire departments, have been successful in meeting the CAL FIRE goal of containing 95% of all wildfires at 10 acres or less. The coordinated effort of ground and air suppression resources has proven a winning combination for many years, and CAL FIRE along with local fire personnel will work hard to maintain their good record and superb mutual aid relationships.

**Mendocino Unit Fire Causes 2000-2010**  
**Total Fires: 1945**





## **ENGINEERING & STRUCTURE IGNITABILITY**

In the early 1980's, the California legislature adopted "Fire Safe" regulations in response to devastating fires on California's wildlands. California, because of its unique combination of vegetation, topography, climate, and population, has one of the most severe wildfire problems in the world. Rugged terrain and highly flammable vegetation make the foothills and mountains of California especially unsafe for residential development unless adequate fire safety measures are taken. A fire hazard severity classification system based on fire weather, fuel loading, and slope has been developed as a basis for identifying fire hazard in the State Responsibility Areas (SRA) where CAL FIRE has the primary responsibility for wildfire protection. To help aid in successful protection CAL FIRE plays an active role in the development of Fire Safe regulations. These regulations provide direction and set standards for construction of adequate ingress and egress routes, water systems, land use planning and zoning to help guide development within the SRA.

The intent of the Fire Safe program is to minimize the loss of lives, structures, and resources due to uncontrolled wildfires. The Fire Safe program places some of the responsibility of fire protection on the homeowner and/or builder/developer. The responsibility is the concept of defensible space planning and incorporating basic fire protection measures into the home or development as it is built. Each home, subdivision, and development constructed in the SRA should have adequate emergency equipment access, building, street, and address identification, and a reasonable water supply for suppression needs built into their designs. Residents and planners within the SRA should understand the importance of planning for fire protection, the need for ongoing and proper clearance of flammable vegetation around structure (PRC 4291), and the benefits of greenbelts, fuel breaks, and controlled burns in and around structures and developments.

Currently, proper addressing of structures in the SRA is the single biggest hurdle to overcome in the Fire Safe Program. Mendocino Unit personnel continue to educate the public on the vital importance of address signage in order to facilitate locating a fire and to avoid delays in response.

## ***Public Resources Code (PRC) 4290 and Title 14 Code of California Regulations***

“These regulations have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction and development in SRA. These regulations became effective September 1, 1991. The future design and construction of structures, subdivisions and developments in SRA shall provide for basic emergency access and perimeter wildfire protection measures. These measures provide for emergency access; signing and building numbering; private water supply reserves for emergency fire use; and vegetation modification.” *The intent statements that follow are a summary and are provided for information only. Specific requirements should be obtained from the local planning and building departments.*

The implementation of these regulations occurs through the local government building permit and subdivision map approval process. Local government is still the approving authority for development. These regulations are triggered by the application for a building permit for purposes other than limited remodels. These regulations do not supersede existing local regulations that are equal to or more stringent than the state regulations. CAL FIRE has been given the role of wildland fire protection expert and is provided the opportunity to review and comment on all proposed construction and development within the SRA. CAL FIRE also performs final onsite inspections to determine if owners have met the intent of the fire safe regulations. The county is granted the authority to make the final ruling. Locally developed rules are more responsive to the local constituency and local environmental conditions. They can be finely tuned to local wildfire suppression strategies and needs. The proposed local rules must provide for the same practical effect as the overall state regulation package. Each protection measure and activity cannot be judged alone, but must be compared to the overall protection provided by the total regulation package.

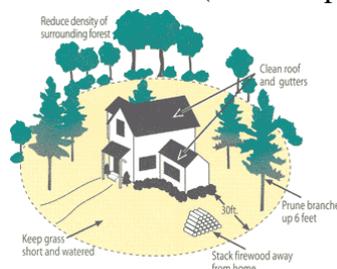
### ***Public Resources Code (PRC) 4291***

Property owners in mountainous areas, forest-covered lands or any land that is covered with flammable material must create at minimum a 100-foot defensible space (or to the property line) around their homes and other structures, as mandated by California PRC 4291.

The state legislature enacted PRC 4291 to improve fire safety and to help prevent catastrophic fires. Under the law, property owners or those who control a property must establish a:

-30-foot clean zone (or to the property line).

-70-foot reduced fuel zone (or to the property line)



This does not mean the property must be clear-cut to bare soil, it involves thinning and breaking up the continuity of ladder fuels and large areas filled with contiguous shrubs that can readily transmit fire.

## ***Title 19 Code of California Regulations***

This important title includes the regulations from the Office of the State Fire Marshall, the Office of Emergency Services and the Seismic Safety Commission, information includes but is not limited to:

- General Fire and Public Safety Standards
- Fire Alarm Systems and Devices
- Fire Extinguishers and Automatic Fire Extinguishing Systems
- Fireworks and Explosives
- Transportation of Flammable Liquids
- Oil Refinery and Chemical Plant Safety Preparedness Program
- Emergencies and Major Disasters Programs and Procedures
- Hazardous Material Release Prevention, Reporting, Emergency Response

## ***Title 24 California Code of Regulations***

The California Building Standards Code, Title 24, which incorporates the California Fire Code, is adopted every three years by order of the California Legislature with supplements published in intervening years. Title 24 mandates specific requirements for new building construction placing strong emphasis on proper address signage, apparatus access, water requirements, and defensible space.

### **Building inspections**

The California Building Commission adopted the Wildland Urban Interface (WUI) codes in late 2005 (Building Standards and Materials for Building Code Chapter 7A). The majority of the new requirements took effect in 2008. These codes included provisions for ignition resistant construction standards in the wildland urban interface. The building standards and materials codes are enforced by the California Building Standards Commission and, in Mendocino County, the Mendocino Building Department. The fire hazard severity zones are used by building officials to determine appropriate construction materials for new buildings in the wildland urban interface. The zones can also be used by property owners to comply with natural hazards disclosure requirements at time of property sale.

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## ***INFORMATION AND EDUCATION***

CAL FIRE's MEU Fire Safety Education Programs are conveyed through school programs, fair exhibits, posters, flyers, road signs, and thousands of other printed materials, radio and television spots, community meetings, one-on-one contacts with wildland homeowners, and in recent years, the Internet. This information and education is provided to people of all ages.

Smokey Bear, Sparky the Fire Dog, and Pluggie the fire hydrant are utilized at numerous events throughout the County with the goals of teaching fire safety at home and in the forest. Smokey, Sparky, and Pluggie are used in both the classroom setting and at public events, such as the Mendocino County Fair. While Smokey, Sparky, and Pluggie are used primarily for teaching young children, the MEU prevention staff also provides other informational and educational materials geared specifically to teacher and educators.

The objective of the Volunteers In Prevention (VIP) Program is to involve and utilize citizens along with public service groups in non-salaried positions to reduce human-caused fires. VIPs educate thousands of children and their parents about fire prevention by participating in fairs, parades, and staffing displays. Volunteers are trained to make preliminary wildland homeowner property inspections for fire safety as required by Public Resources Code 4291, and to discuss with homeowners ways to make their homes fire safe. These one-on-one contacts are an increasingly important education tool as the population in California's wildlands continues to grow. VIPs are trained to assist CAL FIRE's efforts during wildland fires and other emergencies by providing information to the media and public.

## MEU Pre-Plans

- MEU lightning plan
  - On file in MEU Emergency Command Center
- El Dorado Estates/Deerwood Estates Pre-Plan
  - On file within Battalion 3
- Brooktrails Evacuation Pre-Plan
  - See [http://www.btcSD.org/about\\_us/fire\\_dept/index.php](http://www.btcSD.org/about_us/fire_dept/index.php)

## **B: VEGETATION MANAGEMENT**

The 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.

VMP allows private landowners to enter into a contract with CAL FIRE to use prescribed fire to accomplish a combination of fire protection and resource management goals. The projects which fit within MEU's priority areas (*e.g.* those identified through the Fire Plan) and are considered to be of most value to the unit are those that will be completed.

CAL FIRE 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. California's Forest Improvement Program (CFIP) and other federal programs that CAL FIRE administers, offer cost-share opportunities to assist individual landowners with land management planning, conservation practices to enhance wildlife habitat, and practices to enhance the productivity of the land. The Department also delivers the Forest Stewardship Program which combines funds from state and federal sources to assist communities with multiple-ownership watershed and community issues related to prefire fuels treatment, forest health, erosion control, and fisheries issues.

### ***MEU Resource Management***

#### ***Environmental Review***

The California Environmental Quality Act (CEQA) requires public agencies to consider actions on projects that may directly or indirectly result in a physical change in the environment. When CAL FIRE funds, approves, permits, facilitates or carries out a project as lead agency it is obligated to ensure that the appropriate steps are taken to comply with CEQA by preparing a thorough environmental review. This review is conducted by a Resource Management representative in the Forester classification assigned as the Unit Environmental Coordinator.

Review conducted by the Environmental Coordinator ensures that the statutory responsibilities of MEU are addressed in the project planning phase. Examples of CAL FIRE projects in MEU include building & structure construction, repairs, replacement, acquisition, maintenance & fire hazard clearance, fuel reduction projects such as shaded fuel breaks, prescribed burns & timber felling for the purpose of firefighter training.

The unit level review may include but is not necessarily limited to:

- Prepare a project description for project size/extent, magnitude, treatment type, equipment use, & impact potential.
- Review the environmental setting and identify sensitive areas such as wetlands, watercourses, riparian zones, old growth wildlife trees, public use & aesthetics.
- Conduct database searches of the California Natural Diversity Database (CNDDDB), Archaeological Information Centers, unit & statewide fire plans, applicable Timber Harvest Plans (THPs) and VMPs.
- Contact & review project with CAL FIRE specialists who may include an archaeologist, hydrologist, geologist, soil specialist, and/or forest pathologist as necessary.

- Inspect project site (to include appropriate surveys).
- Discuss project proposals with landowners, neighbors, Native Americans, & private/agency professionals familiar with the site, resource or treatment.

Once the review is completed, the necessary documents are filed with Sacramento Environmental Protection staff. The minimum unit review includes a CNDDDB run, archaeological review with a CAL FIRE archaeologist, and on-site evaluation of landscape-level impacts. For projects that fall into a CEQA exempt category, a Notice of Exemption (NOE) and Environmental Review Report Form (ERRF) are submitted for review, approval and filing at the State Clearing house for a 35-day notice period.

For projects that do not fall into a CEQA exempt category, a Negative Declaration or Mitigated Negative Declaration and Notice of Completion are submitted if there are no significant impacts or if potential impacts are mitigated to a level of less than significant. An initial study/environmental checklist is added to the review process. These projects are submitted for review & filing at the State Clearinghouse for a 30-day comment period. Following the end of the comment period, public comment is reviewed and appropriate additional mitigation measures may be incorporated into the project. A Notice of Determination is filed with the State Clearinghouse along with appropriate fees.

### ***Public Resources Code 4290 & 4291***

Forest Practice personnel, working under the direction of the Fire Prevention Bureau, conduct compliance monitoring inspections of defensible space clearance requirements around buildings & structures on SRA lands. Concurrent with Fire Prevention inspections, Forest Practice personnel also conduct compliance inspections of projects which are exempt from Timber Harvesting Plan preparation, if applicable. Examples of such projects include fire hazard exemptions and/or less than three-acre timberland conversions which involve fuel treatment.

### **Fire Suppression Repair (FSR)**

CAL FIRE has authority to conduct fire suppression repairs during emergency incidents on State Responsibility Areas (SRA) under the Public Resources Code (PRC) Sections 4675 & 4676. Repair work may be necessary in locations where fire suppression damage has occurred. Fire suppression damage includes impacts to resources and property caused by fire fighting efforts, including but not limited to potential erosion from dozer & hand-constructed lines, road opening and watercourse crossings. The primary objective of fire suppression repair is to mitigate fire suppression-caused damage to as close to pre-fire conditions as is reasonably possible. This is done by minimizing sediment delivery to watercourses, mitigating slope conditions to pre-fire drainage patterns, removing fire suppression-related debris, restoring berms, barriers, repairing gates & fence lines removed for fire control access, & implementing appropriate mitigation measures (in consultation with a CAL FIRE archaeologist) to protect cultural and/or historic resource sites.

MEU personnel, including Forestry Assistant & Forester classifications, serve as Fire Suppression Repair Technical Specialists (RESP) assigned to wildfire incidents. They assess FSR needs through field identification, mapping & site description, developing a task list that includes equipment needs & equipment time commitments keyed to a map. FSR needs are reported to the Plans Section for inclusion in the Incident Action Plan. For complex repairs, the RESP will request assistance from cooperators, including property owners & timberland

company representatives. For additional input, they may also consult with environmental specialists, such as the California Geological Survey (CGS) engineering geologists.

## **Emergency Watershed Protection (EWP)**

EWP is a cost-share system for the rehabilitation of burned-over land performed in cooperation with the Natural Resources Conservation Service (NRCS). It differs from FSR in that mitigation is designed/applied to treatment of significant wildfire impacts such as areas burned with high intensity fire causing destruction of most organic ground cover or those areas along watercourses and major canyons where flooding can be anticipated. For implementation of a EWP plan, personnel may be tasked to develop an interdisciplinary team with expertise in soil stability, erosion & wildlife to analyze the burned area. The team's analysis will include fire location, acreage burned, topography, vegetative cover, watercourse description(s), erosion hazard and/or the presence of rare, threatened or endangered species. Mitigation measures prepared will specify appropriate treatment areas & methodology. A copy of the report & findings will be supplied to Region & Sacramento Headquarters.

## **California Geological Survey Participation in Post-Fire Assessment**

At the request and with the funding from emergency response agencies (CAL FIRE and CALEMA), the California Geological Survey (CGS) can perform site-specific post-fire assessment of geologic conditions and slope stability that may affect public safety and high-value features (for example homes, roads, public buildings, transmission lines). CGS can also provide support as directed to post-fire watershed rehabilitation where geologic expertise is needed.

Wildfires adversely impact slope stability by removing the mechanical support of hillslope materials provided by vegetation and increase the potential for runoff by removing vegetation that would otherwise intercept rainfall. Structures down slope of burned watersheds may be in positions affected by significant in-channel floods, hyperconcentrated floods, debris torrents, and debris flows initiated by rain events following wildfires.

The California Geological Survey inspections can be used to assist in identifying high-value sites within and down slope from burn areas that may be at risk from post-fire debris flows and other geologic hazards. Sites determined to have a potential risk to lives or property are ranked as high, moderate, or low, and possible mitigation measures are identified where appropriate. The resultant information is tabulated, keyed to a base map, and provided to Federal, State, and local emergency response agencies to be used to develop post-fire emergency response plans.

### **CAL FIRE Archaeology**

Archaeological sites in Mendocino County include prehistoric Indian village sites, petroglyphs, midden deposits, human burial grounds, hunting blinds, and bedrock milling sites. Historic sites include buildings and structures of historical significance as well as wagon roads, trails and cemeteries.

CAL FIRE archaeologists are assigned to fires primarily when Incident Command Teams are assigned, but also on smaller fires on, or adjacent to, tribal lands, on fires where archaeological sites may be impacted, or when the Unit requires archaeological expertise in dealing with

cultural resource issues. They identify and mitigate the protection of fragile, non-renewable archaeological, historical, and other types of cultural resources whenever feasible.

Having an archaeologist assigned to a fire enables CAL FIRE to get site information disseminated to those in the Plans Section and out on the lines in order to protect sites. This may include providing detailed site information to fire protection personnel or flagging areas on the ground for equipment exclusion. In this manner, site protection measures may be incorporated into the incident action plan without hindering or delaying emergency response operations.