

SECTION IV: PRE FIRE MANAGEMENT STRATEGIES

A: FIRE PREVENTION

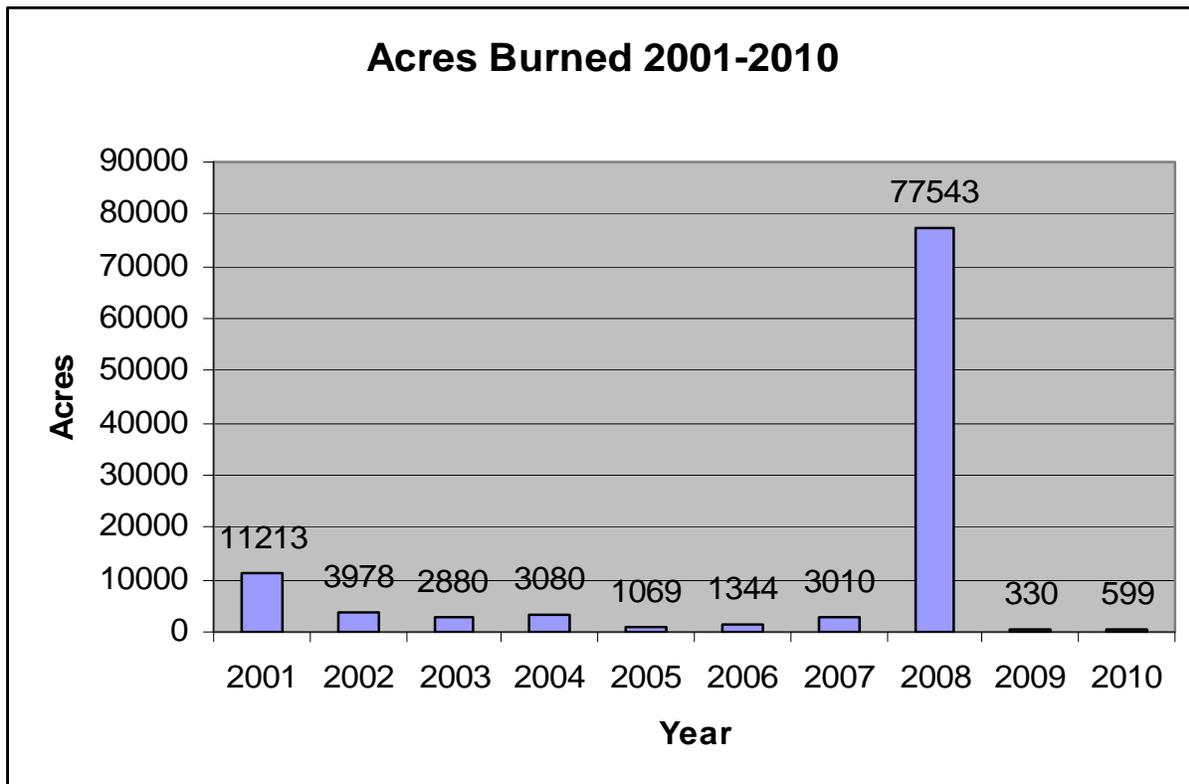
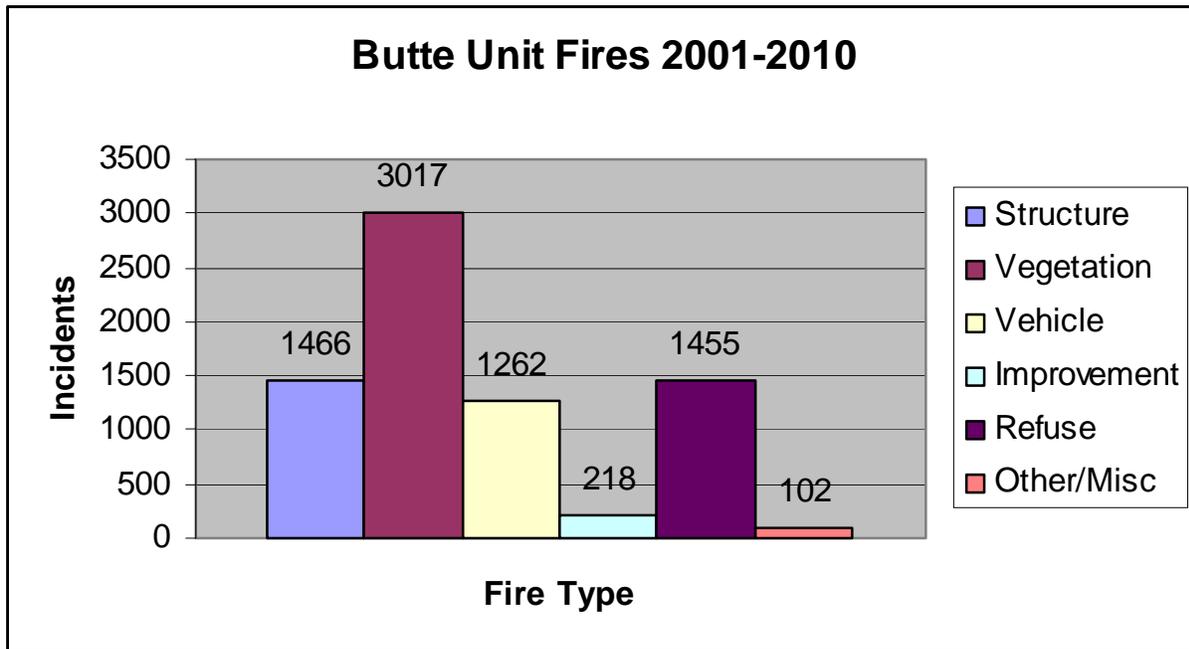
The Butte Unit Fire Prevention Bureau is responsible for public education, public information, fire hazard abatement, fire planning, life safety and fire investigations. Each of these programs is an important facet of a well-balanced fire prevention program.

The Fire Prevention Bureau supports the fire investigation needs of the Unit, assisting with complex fire investigations such as those involving fire fatalities, commercial structures, arson, or detailed follow-up investigative work. Through the fire investigation process, specific fire cause problems can be identified and will be addressed utilizing focused prevention efforts of education and enforcement programs. For example, over the past few years, fires have been caused by using machinery, such as lawn mowers, to cut standing dead grass. Mower blades striking rocks, mower exhaust igniting grass, mechanical failures and improper fueling techniques have all caused fires. To combat these preventable fires, the Department developed a brochure and a public service announcement (PSA) detailing the hazards of mowing dry grass during warm weather and the preventative measures for a landowner to utilize.

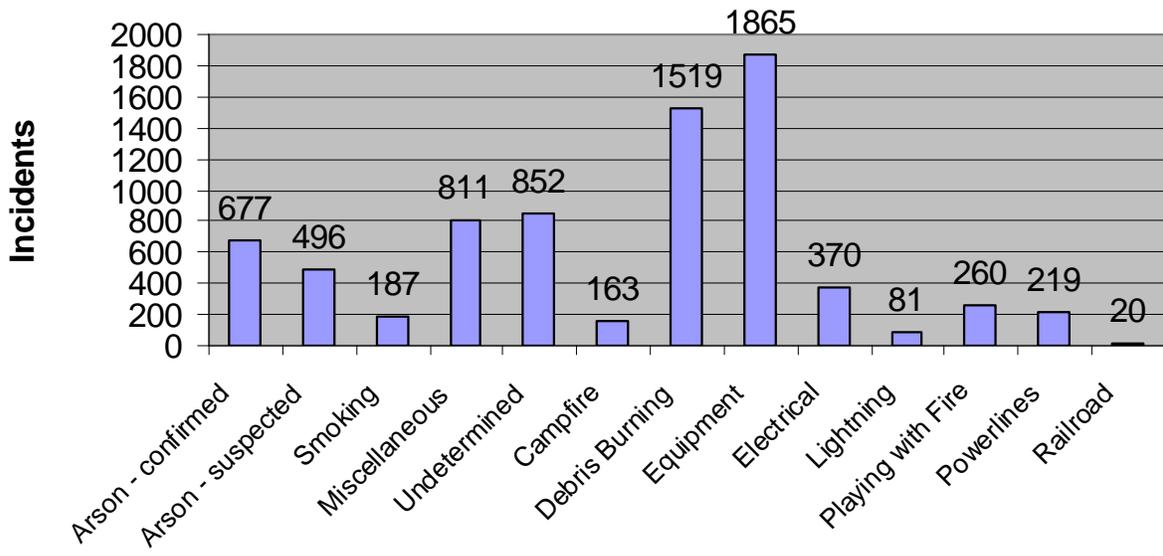
Priority projects are listed in Appendix A.

Ignition Analysis

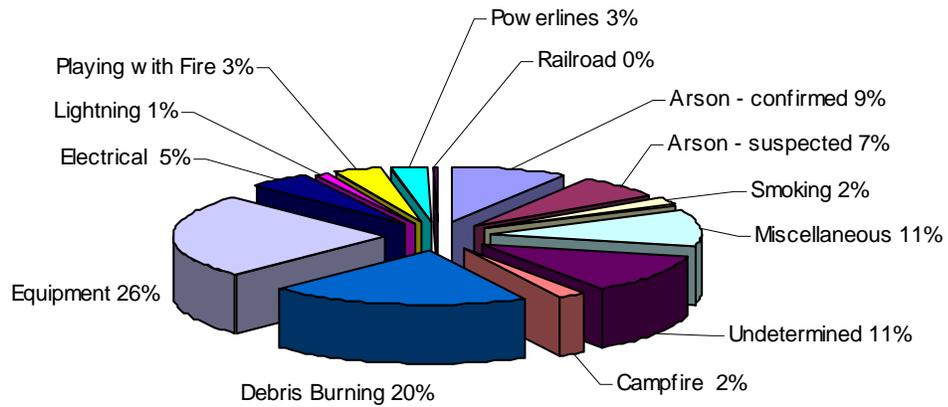
All fires within CAL FIRE/Butte County Fire Department jurisdiction are included in this analysis. The most common ignition cause in the Butte Unit during the past ten years has involved the use of equipment, at 26% of all ignitions. The second most common cause is debris burning at 20%. Most ignitions are associated with roads and areas of higher population density. Determining the cause of each ignition is an ongoing challenge. The causes of many fires can only be narrowed down to a few possibilities, therefore they are classified as 'undetermined'. Company officers attend training to hone their fire origin and cause investigation skills. The following charts illustrate the occurrence and cause of fires for previous ten years.



Butte Unit Fire Causes 2001-2010



Butte Unit Fire Causes 2001-2010

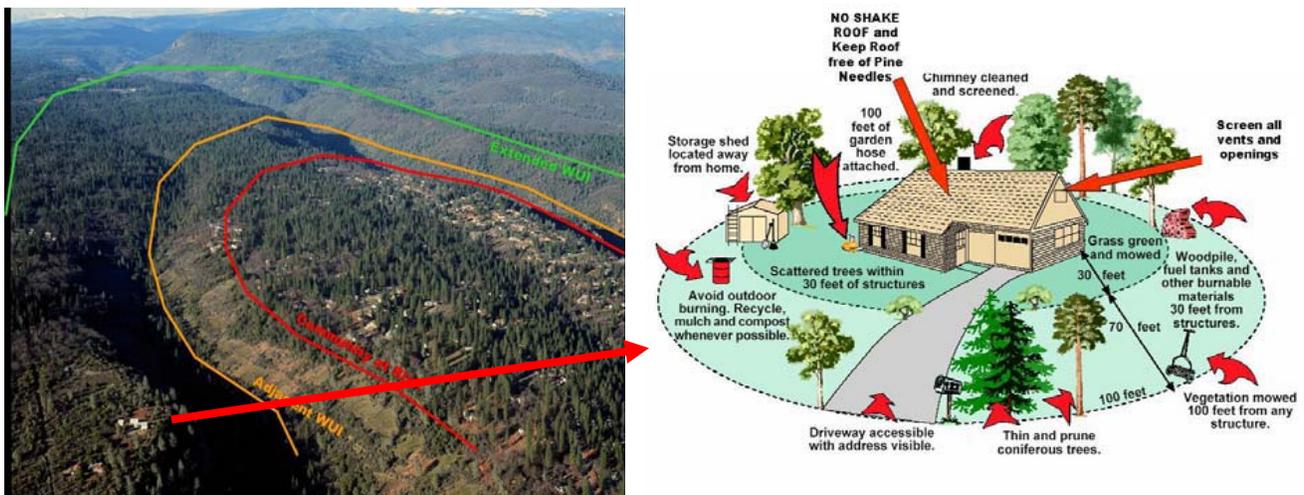


ENGINEERING & STRUCTURE IGNITABILITY

One key component of the fire plan is the protection of structures during the event of a wildfire. This critical asset is one of the most difficult and costly to defend during a wildfire. Compliance with Public Resources Code (PRC) 4291 regulations gives the best opportunity for structural survivability during a large wildfire. However, it is not enough to have defensible space without giving careful thought and effort toward improving the home's resistance to structural ignitability. Structural ignitability is a term that describes a structure's susceptibility to catch fire during a wildland fire. Aiding a fire in this capacity would be any item allowing an ember to readily start a new fire. Many structures can be destroyed well in advance of the main fire. During firestorms, fires are often fanned by strong winds creating a blizzard of embers which blow through the air. These embers can land in a receptive fuel bed on or near a structure. Receptive fuels include materials such as needles and leaves that accumulate on, under and near a home, material stored on or near the home such as yard furniture or woodpiles, and some types of building materials. Building materials that lend themselves readily to "structural ignitability" include the obvious shake roof and the not so obvious deck material and interior support members in the attic or sub-floor space. When reducing a structure's ignitability, the mitigation measures are best accomplished by the individual homeowner.

The illustration below displays the importance of maintaining PRC 4291 clearance as it relates to location in relevance to the community at risk and a home's place in the wildland urban interface (WUI). In this illustration, the identified home falls within the Extended WUI. The location at the top of a ridge would only increase the danger of a structure succumbing to a wildland fire. A structure such as this would benefit greatly by adhering to PC 4291 compliance.

Detailed Illustration of the Home Ignition Zone



HOME IGNITION ZONE

- Fire resistant building construction
- Defensible space around the home 100 feet.

PRC 4291 regulations are enforced by fire station personnel and by focused inspection teams in pre-identified areas. Inspectors provide fire safety information and education materials to receptive landowners. If needed, re-inspections may be forwarded to an officer within the bureau for follow-up

law enforcement action. In 2010, over 3,400 defensible-space inspections were performed. Defensible space inspections remain a high priority fire prevention program in the Butte Unit.

Through a grant-funded project, the Butte County Fire Safe Council provides free assistance to residents, who meet certain income, age and ability requirements, to bring their residences into compliance with PRC 4291 regulations.

In January of 2008, new building codes were instituted to maintain high levels of fire and life safety. The California Building Commission has adopted these codes that include provisions for ignition resistant construction standards in the WUI. Updated fire hazard severity zones will be used by building officials to determine appropriate construction materials for new or remodeled buildings in the WUI. The California Building Code that references the building standards can be found in section 703A.1 to 705A.

PRC 4290 regulations establish minimum wildfire protection standards in conjunction with building, construction and development in State Responsibility Areas (SRA), providing for emergency access, signing and building numbering, and vegetation modification. These regulations became effective September 1, 1991.

In coordination with the Butte County Department of Development Services, the Deputy Fire Marshal, is responsible for enforcing Butte County Improvement Standards and California Fire Code on all use permits, minor use permits and commercial building permits countywide. The Deputy Fire Marshal enforces PRC 4290, PRC 4291, Butte County Improvement Standards, and the California Fire Code, on all new building construction (commercial and residential) within Butte County. Installation of sprinkler systems in one and two family dwellings and manufactured homes is enforced in accordance with National Fire Protection Association (NFPA) standard 13D and California Fire Code Chapter 9. Fire Protection planning is reviewed at the subdivision and parcel map level and typically implemented at the development stages of a project.

INFORMATION AND EDUCATION

The Information and Education programs in the Butte Unit are coordinated efforts, supported by the commitment of the Fire Prevention Bureau, Volunteers in Prevention (VIP's), fire station personnel, Butte County Fire Chief's Association, and the Butte County Sherriff's Office.

Information

The public information function is covered 24 hours per day by Incident Command System (ICS) qualified Public Information Officers (PIO's) and by the Emergency Command Center personnel. The overall goal of this function is to keep our customers, the citizens of Butte County, informed by providing timely and accurate information to the varied media market in the northern Sacramento Valley.

Information Call Center and Joint Information Center training is conducted in cooperation with multiple agencies to foster inter-agency relations and to expand the base of qualified call-taker personnel. The Butte Unit also has approximately 20 VIP's that are trained and experienced call-takers. These VIP's are vital to the information function during a significant incident.

In addition to CAL FIRE/Butte County Fire Department specific public information, The Butte County Fire Chief's Association PIO's, with representatives from CAL FIRE/Butte County Fire Department, Chico Fire Department, El Medio Fire Protection District, Oroville Fire Department, Paradise Fire Department and the U.S. Forest Service meet bi-monthly to plan joint information releases that cover message topics including: Summer Safety and Heightened Fire Danger, Changing Smoke Detector Batteries, Holiday Home Safety and Fall Home Heating Safety.

Education

Annually, thousands of Butte County residents, both children and adults, attend dozens of events including school programs, fair exhibits, and community events. Presentations that cover many topics, including Stop, Drop and Roll, Home Safety, Fire Safety, and Defensible Space, are provided.

The most intricate fire prevention education program taught in the Butte Unit is the Fire PALS (Fire Prevention and Life Safety) program. Fire PALS is an elementary school program produced in cooperation with the agencies from the Butte County Fire Chief's Association and the Butte County Sherriff's Office. Lessons include fire safety as well as life safety, including home exit plans, bicycle helmet use and firearm safety. Fire PALS presentations remain a high priority education program.

Contributing factors to the success of public education in the Butte Unit are the commitment of the VIP's, cooperation with multiple agencies, and community involvement by fire station personnel. The Butte County Fire Chief's Association, Butte County Fire Safe Council and the Butte County Sherriff's Office have all partnered with CAL FIRE to coordinate and deliver consistent safety programs and messages. Approximately 90-percent of the hours dedicated to education each year are provided by fire station personnel. At community events station personnel bring a very important "personal" touch to the messages that are taught, which underscores our department's commitment to customer service.

B: VEGETATION MANAGEMENT

The Butte Unit Resource Management staff administers numerous programs which support the Strategic Fire Plan.

Fuels Modification

- Forest Practice – CAL FIRE Resource Management staff is responsible to enforce the California Forest Practice Act and Forest Practice Rules for timber operations on private timberlands. This enforcement process starts with the initial project review, and continues through the harvesting of timber to final completion. The treatment of logging slash to reduce the overall fuel hazard within timberland areas must comply with the rules and regulations, which generally apply around structures and along roads. During the review of commercial timber harvesting plans CAL FIRE staff has opportunities to provide written recommendations to project proponents designed to facilitate a positive change in the methods in which timber operations are conducted. Our foresters continually look for ways to improve fire safety, hazard reduction, public safety, vehicular access, water sources, timing of operations, wildlife benefits, and other site specific mitigating measures necessary to support the Strategic Plan.
- Vegetation Management Program (VMP) - The Vegetation Management Program (VMP) is a cost-share program that utilizes 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 models natural processes, restores fire to its historic role in wildland ecosystems, and provides significant fire hazard reduction benefits that enhance public and firefighter safety.

The 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 Butte'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 have been completed initially and continue to be active over the years.

- California Forest Improvement Program (CFIP) – This is a state cost share program to assist private timberland owners in the management of their forest lands. Eligible practices include reforestation projects (funding up to 90% on lands damaged by wildfire) and fuel treatments accomplished through thinning, pruning, and follow-up fuel reduction.
- Grant funded fuel treatments – These projects generally involve the construction or maintenance of fuel breaks in the Wildland-Urban Interface. Proposition 40 funded dollars were used extensively within Butte County to construct fuel breaks and accomplish other fuels reduction projects. Three projects funded under the CNR (CAL FIRE Northern Region) Hazardous Fuels Treatment Grant created shaded fuel breaks in strategic locations near communities at risk within the Butte Unit.

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 in complying with CEQA by preparing an environmental review. On the Butte Unit, this review is conducted by the Division Chief, Resource Management, who is also the Unit Forester and Unit Environmental Coordinator. Review conducted by the Unit Forester/Environmental Coordinator ensures that CAL FIRE's statutory responsibilities within the Butte Unit are addressed in the project planning phase. Examples of CAL FIRE projects in Butte include facility construction, repairs, maintenance, and fire hazard clearance. Fuel reduction projects include shaded fuel breaks, prescribed burns, and live fire training burns.

Fire Suppression Repair

CAL FIRE has authority to conduct fire suppression operations during emergency incidents on State Responsibility Areas (SRA) under the Public Resources Code (PRC) Sections 4675 & 4676. Fire suppression damage includes impacts to resources and property caused by fire fighting efforts, including but not limited to potential soil erosion from dozer & hand lines, road opening and watercourse crossings. The primary objective 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 or removing berms and barriers as necessary, repairing gates and fence lines removed for fire control access, and implementing appropriate mitigation measures (in consultation with a CAL FIRE archaeologist) to protect cultural and/or historic resource sites.

The Resource Management staff provides suppression repair duties in the Unit. Their natural resource background, training and knowledge of both fire control issues and methods of addressing complex environmental issues greatly support the Department's Strategic Plan. They work with landowners and other stakeholders to provide a rapid post-fire assessment of burned areas. They have many private and agency contacts, and effectively utilize available resources, including CAL FIRE hand crews, to accomplish the restoration and protection activities.

Forest and Range Health

The CAL FIRE mission emphasizes management and protection of California's natural resources. The Resource Management Program is an integral part of that responsibility. Management of overstocked timber stands is necessary to achieve the goals of restoring, enhancing and protecting California's natural resources. Healthy forests are more productive, are more resistant to diseases that weaken trees or cause mortality, and generally are at lower risk to catastrophic wildfire. Restoring rangeland through prescribed burning of non-native noxious weeds, forbs and grasses promotes increased range health, which has environmental and socio-economic benefits.