

THPO/SHPO Summit
Keeping Traditions in a Changing Environment

**The Cal Fire Archaeology Program,
Tribal Cultural Resources,
and the 2015 Fire Season**

California Department of Forestry and Fire Protection (CAL FIRE)
Archaeology Program Presentation Handout

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Procedures for an Archaeologist Assigned to a CDF Wildfire or Other Emergency Incident

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This document provides guidance to an Archaeologist assigned to a California Department of Forestry and Fire Protection (CDF) wildfire or other type of emergency incident. This information includes a goals statement and specific logistic and technical suggestions describing what needs to be done when first assigned to an incident, as well as suggestions for successful completion of tasks upon arrival, during, and before departing an incident. These procedures are also intended to provide useful information for the Plans Section staff to which Archaeologists are likely to be assigned, and to the California Historical Resource Information System (CHRIS) Information Centers, Native American Heritage Commission (NAHC), and local Native American tribal contacts who will play a role in providing the Archaeologist with information concerning cultural resources which may occur within the areas affected by the incident.

GOALS STATEMENT

The purpose of assigning an Archaeologist to an incident is to identify and protect important archaeological, historical, and other types of cultural resources whenever feasible if such protection can be accomplished in a safe manner without delaying or hindering emergency response operations. The Archaeologist must never compromise safety for the protection and preservation of archaeological and historic properties. A successful Archaeologist is one that is viewed by most members of the team as an asset, rather than a hindrance, to the team that he or she supports.

ASSIGNMENT TO THE INCIDENT

- The request to fill an order for a Technical Specialist (Archaeologist) is likely to come from the Incident to the CDF Command Center. When the request reaches the Archaeologist he or she will be asked concerning their availability to respond to the incident. If the Archaeologist is available to take the assignment that person should clearly indicate so, calculate the estimated arrival time to the incident, and provide that information to the Command Center. The Archaeologist will also need to ask for and write down the following items of information:
 1. Order and Request Numbers – These numbers will be needed to check in once the Archaeologist arrives at the incident and will be used on the incident timesheet (FC-33).
 2. Reporting Location – Get the name of and directions to the incident reporting location. Ask for the phone number for the camp. Ask for the time of the morning briefing. Note

that the Command Center will in turn ask the date and time of anticipated arrival. Be sure to budget time for sleep and try to arrive in time to attend the morning briefing.

3. Incident Legal Description – Township, range, and section information. Also request the size of the fire and the name of the USGS quadrangle(s) that show the fire area. This information may or may not be known at the time the Archaeologist receives the assignment, but CDF can usually provide information regarding the location of the fire and the direction the fire is moving.
4. Names of Other Landowning Agencies – Find out whether or not other agencies such as the USFS, BLM, California Department of Parks and Recreation, etc. manage lands within the incident area.

PREPARATION BEFORE DEPARTING TO GET TO THE INCIDENT

- After receiving an incident assignment from the Command Center contact the appropriate CDF Region Archaeologist. Inform them of the assignment to seek and acquire pertinent information regarding the fire area.
- Contact the appropriate CHRIS Information Center and request an archaeological records check for the incident area as outlined in the Memorandum of Agreement between CDF and the Information Centers. The Information Center should be contacted by telephone, notified of the incident, and requested to provide the needed information as quickly as possible. Request a listing of all known archaeological, historical, or other cultural resource sites which are located within the incident area and adjacent areas, and if the area had previously been surveyed. It will be helpful to provide the ICs with information on which direction(s) a wildfire is spreading in order to include information on all known sites that could be immediately affected by the fire or by suppression efforts. The IC will need a map or maps depicting the incident location, or if this is not available - a legal location (Township, Range, and Sections) in order to provide the needed information. CDF will usually need copies of the site records for these sites, or at least mapped locations and site descriptions. In some cases the CDF Archaeology Program manager may be assisting the Archaeologist responding to the incident by providing the IC with the map or legal location and helping arrange a mechanism for such information to get to the responding Archaeologist. In some cases the Archaeologist may be able to have the Information Center photocopy the entire USGS quadrangle(s) that contain the fire area and arrange to pick up the maps en-route to the incident. In other cases the Archaeologist will have to report to the incident, obtain copies of incident maps, and then visit the Information Center to obtain USGS map copies or to simply transfer mapped data directly on to incident maps. Note that these offices are closed on the weekends but through an MOU the Information Centers have agreed to provide CDF with a list of confidential emergency response telephone numbers. Contact the CDF Archaeology Program Manager for this list of phone numbers. A statewide electronic database containing locations of all know sites throughout California is not yet available but CDF and the Information Centers are working on this, and soon CDF expects to acquire immediate access to archaeological site location information pertinent to the incident.

- Consult with the Native American Heritage Commission (NAHC). Our contact is Rob Wood. His office telephone number is (916) 653-4040. Ask the NAHC to check the Sacred Lands File for known sites and provide CDF with local tribal contact information. If the NAHC does identify a site on the Sacred Lands File the contact information about the site might not be a person identified on either CDF's or the NAHC's contact lists. The NAHC may provide CDF with a confidential emergency response telephone number to use during weekends or off hours. Check with the CDF Archaeology Program Manager to see if such a number is available, if appropriate. Also note that these consultation procedures may have to be repeated if the fire grows substantially in size.
- Attempt to make contact with the appropriate local tribal contact(s) for the incident location. Provide notification about the incident and request information concerning the locations of cultural resources which might be threatened by the incident. The NAHC should be consulted to determine the most appropriate tribal contact(s) to be notified for the incident. CDF's Native American Contact List may not be a useful source for emergency response since multiple contacts (sometimes over 15) are listed for individual counties. Note that this contact or series of contacts may take some time to complete, and the Archaeologists responding to the incident may choose to forward this task to someone else, such as the CDF Archaeology Program Manager, to complete while the Archaeologist is driving to the incident.
- Consult with any State or Federal Agency Archaeologist that has jurisdiction over lands within the incident area. The Archaeologist should make plans for a meeting to get site information upon arrival to the incident base.
- Gather field equipment, pertinent reference materials (Kroeber's *Handbook of the Indians of California*, the Smithsonian's *Handbook of North American Indians*, Moratto's *California Archaeology*, etc) camera, GPS unit, laptop computer, printer, cell phone, and any topographic maps (paper or electronic) that cover the incident area.
- Gather complete complement of personal protective gear (PPG) including Nomex, hard hat, gloves, web gear, and assigned radio.
- Gather complete CDF uniform including shirts, T-shirts, trousers, sweatshirt or jacket, boots, socks, undergarments, cap, and belt as well as after-hours clothing from home to last a week. Also be sure to bring a medium to large-sized ice chest for lunches and drinks.

TRAVEL TO THE INCIDENT

- The Archaeologist should drive to the Incident Base in their CDF vehicle. It is critical that the Archaeologist have a 4-wheel drive vehicle available for use on the incident and one may not be available should the Archaeologist fly to the incident and rely on a rental agency.
- The Archaeologist should make sure to use 00900 for the gas code when traveling to and from the incident.

- Be sure to plan adequate time for sleeping. Working the incident with little or no sleep will render an Archaeologist less effective and safety-conscious than if adequately rested.

ARRIVAL AT THE INCIDENT AND FIRST DAY SCOPE OF WORK

- Find the Check-In recorder. Oftentimes this person will be located at the entrance to the compound that is hosting the Incident Base and will have nothing more than a clipboard on which he or she records your name, place of origin, assignment, vehicle number, and time of arrival. In other cases the Check-In is found inside a trailer with the clerk sitting behind a computer where he/she enters the same information directly into an electronic database. If the Archaeologist does not find Check-In within a few moments of arrival, ask for its location.
- Following check-in go to the Plans Section area, which is typically a trailer, and ask for the Plans Section Chief. The Archaeologist should provide an introduction and assure staff that the Archaeologist requires very little supervision. Inform staff that the locations of known archaeological sites will be obtained and the Archaeologist will work with Plans to develop strategies to avoid important sites where possible. Ask for an incident briefing and obtain a copy of the most recent Incident Action Plan (IAP). The Archaeologist should advise staff that a few hours will be needed to gather data and that the Archaeologist will meet with them later to discuss an archaeology plan.
- Obtain a copy of the full size incident map from the GIS trailer.
- Find a work space in one of the trailers or tents (perhaps with GIS or Fire Suppression Repair personnel) that has access to electricity for a computer, a table to lay out maps, and for a place for people to leave messages for the Archaeologist.
- Obtain site location data from Information Center, NAHC, and other agency Archaeologists. Plot known archeological site locations on GIS map and return to GIS trailer for digitization of site locations. Request that the burn boundary, Federal agency ownership boundaries (if any), and fire control line locations also be included on the requested map.
- If the incident includes federal lands, contact appropriate federal agency personnel to determine if any fire management plan or cooperative fire protection agreement exists for the affected federal unit, and consult to determine protection strategies and priorities. Find out who is the Agency Resource Advisor and make contact.
- Plot site locations and high sensitivity locations on IAP maps. Review IAP for description of general fire control objectives in these areas. Develop prioritized plan for field inspecting known site locations based upon estimated threats from fire and/or suppression. Also develop a plan for surveying high probability areas which may be threatened by suppression activities. Determine whether or not additional Archaeologists are required to implement the plan.
- Meet with Plans Section Chief to discuss archaeology plan. If additional archaeology staff is required ask for approval to request them. Ask about attending the afternoon Plans Meeting if

possible so that the Archaeologist gets an idea of where heavy equipment will be assigned the following day and to get to know the remainder of the Plans Section staff members. If asked to make a presentation at the Planning Meeting by all means do so in an effort to convey the importance of cultural resources to all in attendance. Ask about making a brief presentation at the next day's Morning Briefing so that you have an opportunity to alert all other fire-going personnel of archaeological concerns.

- Submit a one-page Archaeological Guidelines sheet to the Plans Section for inclusion in the next IAP. This document can be prepared using site data gleaned from the Information Center and other sources. Include types of artifacts and sites likely to be encountered, locations of likely sites, recommend avoidance if at all possible and otherwise to minimize ground disturbance, recommend mapping or taking GPS readings for new discoveries, have discoveries reported to the Archaeologist or Plans Section, note that work should cease in the event of discovery of human remains. Incident personnel that discover bones thought to possibly be human should immediately request an evaluation by a CDF Archaeologist to determine whether or not the remains are human. Once confirmed, Health and Safety Code Section 7050.5 requires immediate notification to the County Coroner. The discovery should also be promptly reported to the Plans Section Chief, CDF Archaeologist (if not involved earlier), the Native American Heritage Commission (NAHC). The NAHC will designate a Most Likely Descendant pursuant to PRC 5097.98 to make a recommendation to the landowner for the treatment and disposition of Native American human remains and any associated funerary objects.
- If time allows begin to relocate and flag known sites. Develop written protection measures, if required, to be included in the next IAP. Submit protection measures, in writing on an ICS 204 Form, to the Plans Section.
- Prepare Unit/Activity Logs (ICS 214) at end of shift and submit to Documentation Unit. List major events that occurred during the shift, any special actions that are required, and who you passed, in the chain-of-command, the information on to.

SECOND AND SUBSEQUENT DAYS SCOPE OF WORK

- Attend the Morning Briefing to find out whether or not the fire location changed overnight. Listen closely to predictions of where the fire is likely to grow. Also listen closely to messages delivered by Fire Weather, Fire Behavior, and Safety personnel. Have of a quad map available at the briefing showing site locations so Division and Branch Supervisors, Dozer Bosses and Dozer Operators can look at the locations of sites in the areas that they will be working in. Have them mark pertinent site locations on their maps.
- Flag known sites and develop written protection measures to be included in the next IAP. Make sure your flagging is different from colors that others are using to mark other types of areas. *Example:* Say the Archaeologist has relocated a known prehistoric village near the west end of Division C and marked it with red plastic flagging tape. The site is located immediately adjacent to a dozer line and you note that widening the north edge of the line

would impact the site. In the “Special Instructions” section of the Division C page (ICS 204) for the next IAP the Archaeologist would provide language such as “Exclude heavy equipment operations from the Special Treatment Area flagged in red in the western portion of Division C”.

- Develop plan for conducting field inspections prior to new fire control line construction in potentially sensitive areas. Flag any discovered sites and develop written protection measures to be included in the next IAP.
- Develop plan for field inspecting existing fire control lines placed in potentially sensitive areas prior to arrival of the Archaeologist. Flag any discovered sites and develop written protection measures to be included in the next IAP.
- Meet daily with Plans Section Chief for debriefing, especially during the afternoon Planning Meeting if possible.
- Prepare an e-mail message sent to the CDF Archaeology Program Manager and your supervisor every few days to provide an update regarding incident events.
- Note that the Archaeologist may be asked (or the Archaeologist may ask to) transition from the Plans Section to the Fire Suppression Repair (rehab) Section. This transition may take place after the incident is contained but not always. Suppression Repair activities sometimes begin before the incident is contained.

BEFORE DEPARTING THE INCIDENT

- Obtain a “S-Number” from the Ordering Manager in the Logistics Section for expenditure of funds for the required Archaeological Records Check. Transmit this “S-Number” to the Information Center for inclusion on the Records Check invoice along with the incident name. Have a copy of the invoice faxed to you for hand-delivery to the Finance section if possible. If not possible have invoice faxed directly to Finance. Alternatively have invoice sent directly to the CDF Unit (AEU, MEU, etc) within which the incident is situated.
- Prepare a written report for Plans Section. The report should include the names and dates of those assisting in the archaeological effort and include a brief description of each known site, effects of fire or fire suppression activities, and management recommendations. It should also describe the Native American consultation efforts and the results of those efforts. A map showing specific site locations should generally not be provided with this report, since this is not a confidential document.
- Provide a copy of the written report to the Fire Suppression Repair Team. Go over the list of known sites and management recommendations for each with the Team leader or his/her deputy.

- Provide a copy of the written report to the Documentation Unit.
- Provide final Unit/Activity Log (ICS Form 214) that documents your daily activities to the Documentation Unit.
- Go through the Demobilization process.

AFTER DEPARTING THE INCIDENT

- Complete final version of the report that contains survey coverage and site location maps. Distribute copies of the final report and maps to the following:

The Native American Heritage Commission.

Local tribal groups that were consulted during the incident.

Any agency whose land was involved in the incident.

The appropriate CDF Northern or Southern Region Archaeologist.

The CDF Archaeology Program Manager.

- The appropriate Center of the California Historical Resources Information System Office. (Note that any archaeological site records completed following the incident are to be attached to the report for submission to this office as well.)
- Contact the CDF Archaeology Program Manager to discuss any site damage that might be mitigated through use of the 00900 archaeology contract funds.

Butte Fire Summary Information

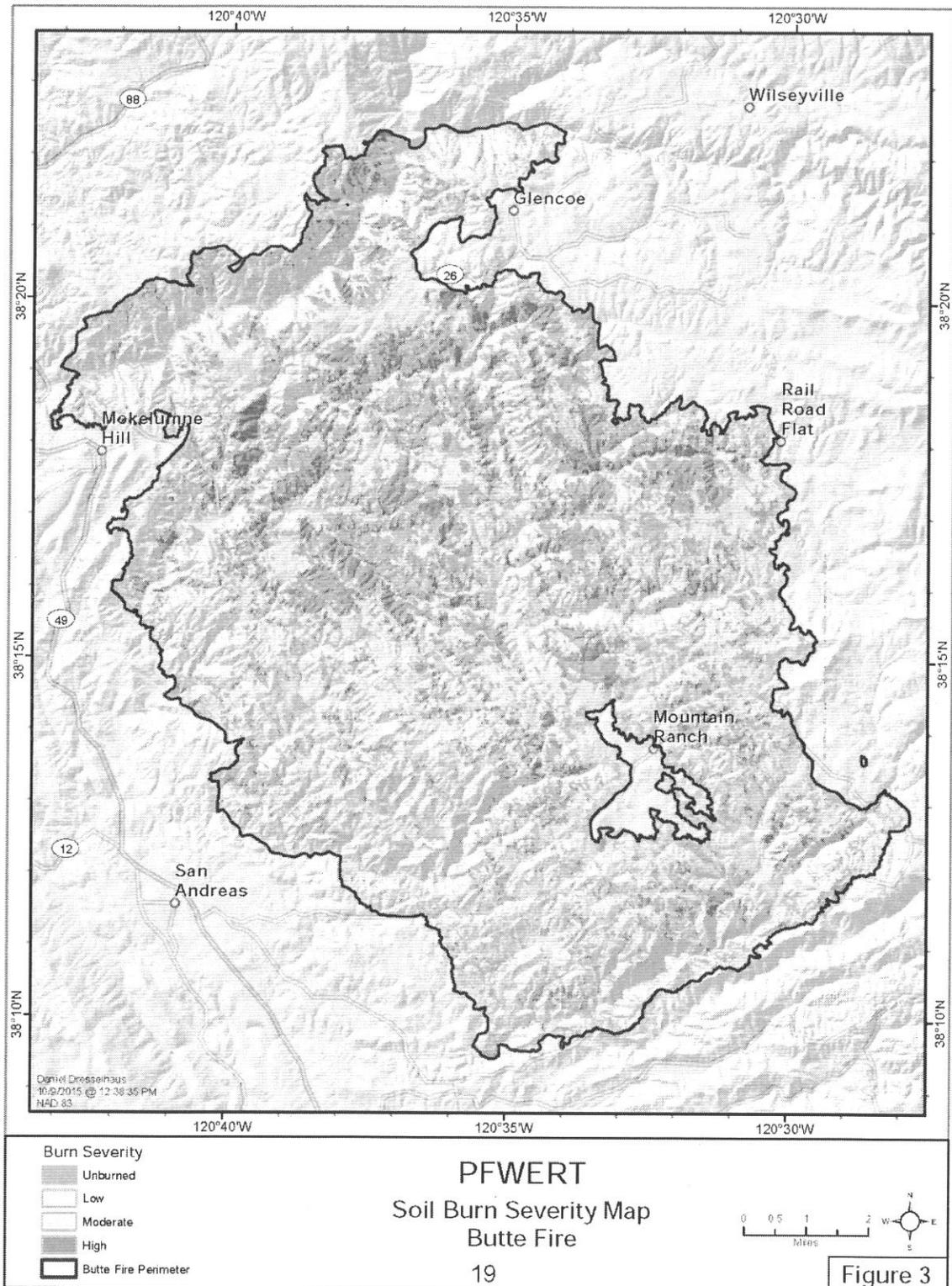
The Butte fire started on September 9, 2015 at 2:26 PM. The fire made significant runs to the south at a dangerous rate of spread on September 10th and 11th, consuming approximately 25,000 acres and 29,000 acres respectively. These significant runs occurred in the areas of North Fork Calaveras Creek, Jesus Maria Creek, and Salamander creek. The fire was declared 100% contained on the evening of October 1, 2015. The vegetative communities within the fire area range from grasslands, to young and mature brush/chaparral, to mature timber. In all, the Butte fire burned 70,868 acres, destroyed 475 residences, 343 outbuildings, and resulted in two civilian fatalities.

Fire History

While Amador and Calaveras counties have an extensive fire history, much of the Butte fire area had no recorded fire history. Within the Butte fire perimeter, all or portions of 30 fires have occurred. All but two of these fires were less than 1,700 acres. The two largest fires were the Gulch fire in 1992 which burned 17,419 acres in the Calaveritas Creek watershed, and the Leonard fire in 2001 which burned 5,188 acres on the west side of Quiggs mountain. Jesus Maria Creek, North Fork Calaveras River, and much of Salamander Creek watersheds have virtually no recorded fire history.

Physical Setting

The Butte Fire occurred within the central portion of the Sierra Nevada Geomorphic Province (Sierra Nevada), approximately 3.5 miles southeast of Jackson, Amador County, and 1.2 miles east of San Andreas California. The topography in the burn area ranges from a high of about 3000 feet in the east to a low of about 600 feet along the Mokelumne River in the northwest. The majority of the burn area ranges in elevation from about 2800 feet to about 1000 feet. The average annual high and low temperatures are 76 and 43 (degrees F), respectively. The average temperature is 60 degrees. On average, the burn area experiences 32.7 inches of rainfall annually. The burn area is drained by a number of perennial and ephemeral watercourses including the north and south forks of the Calaveras River and the Mokelumne River. The Mokelumne River, located in the northern portion of the burn area, is the largest watershed affected by the Butte fire and is divided into the Hunt Gulch, Lower Middle Fork and Lower South Fork. A total of 18,455 acres of the 70,868 acre fire was within Mokelumne River watershed. The remaining 52,413 acres was within the Calaveras River watershed, including the North Fork Calaveras River and its tributaries, including Esperanza Creek in the north, Jesus Maria Creek in the south. Jesus Maria Creek is fed by two tributaries, Wet Gulch and Salamander Gulch. The total watershed area at the junction of the North Fork Creek and of the Calaveras River and Jesus Maria Creek is approximately 73 miles, according to the USGS Streamstats that were provided (<http://water.usgs.gov/osw/streamstats/california.html>). Within the burn area, the South Fork Calaveras River is fed by Murray Creek in the north, Calaveritas Creek and O'Niel Creek, and the Lower San Antonio Creek in the south. The side-canyon slopes within each of these drainages tend to be steep (greater than 56%) (Figure 1). The



topography between these drainages generally consists of gentle (0% to 25%) to moderate (26% to 55%) slopes. The western portion of the burn area has a number of smaller, steeper areas (greater than 40%) outside of the major drainages when compared to the eastern portion of the burn area, which has broader, gentler slopes between the drainages. Generally the steepest slopes (greater than 56%) within the burn area are found in the eastern and central portions of the major drainages, with the Mokelumne River exhibiting the largest continuous area of steep side slopes with the highest topographic relief. The fire burned approximately 12,000 acres of public land of the Bureau of Land Management and 59,000 acres of privately owned land.

Note - Information on these pages was taken from a DRAFT report titled "Butte Fire, CA AEU-024918, Post Fire Emergency Response Team" dated October 12, 2015. No cultural resource data are contained therein.

Valley Fire Summary Information

The Valley Fire began on September 12, 2015 and burned 76,067 acres in Lake, Sonoma, and Napa Counties, south of Clear Lake (Figure 1). Major areas impacted include Middletown, Cobb, and Hidden Valley. Tragically, the fire killed four people. Additionally, a total of 1958 structures were destroyed, including 1280 homes and 27 apartment buildings. This total makes the Valley Fire the third worst in state history in terms of the number of damaged structures.

Approximately 99 percent of Boggs Mountain Demonstration State Forest rapidly burned (roughly 3460 acres of the total Forest area of 3493 acres). The Valley Fire area burned went from 400 acres in the first few hours to 40,000 acres in approximately the first 18 hours due to high wind conditions, reported up to 60 mph.

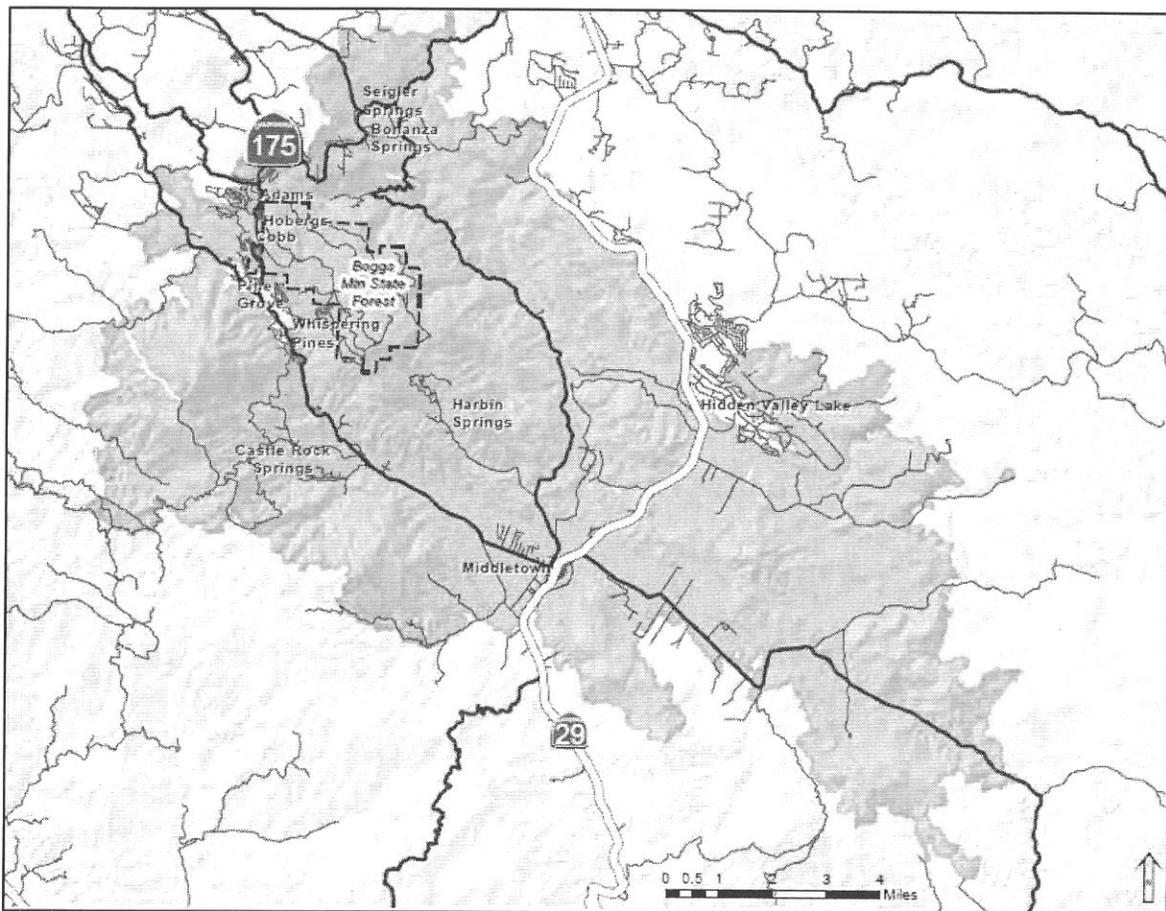


Figure 1. General Valley Fire map.

Geographic Setting

The Valley Fire burned through an area that ranges in elevation from about 1000 feet above mean sea level near Bordeaux Lake to a high of about 4700 feet above mean sea level at Cobb Mountain. This area is home to numerous communities, wineries, agricultural centers, and resorts. Lower and mid elevation areas were comprised of mostly of gray pine and oak woodlands with areas of manzanita/ chamise fields and low lying grasslands. Upper elevation areas transition to conifer forests with numerous hardwood species in riparian zones. For specific information regarding vegetation types, including acres and percentage within the fire perimeter, see Table 2. Precipitation varies greatly from the northwest portion of the fire to the southeast portion of the fire, from 80 inches annually southeast of Anderson Springs near the fire perimeter to 30 inches annually near Bordeaux Lake. Upper elevation areas receive limited snow most years, however most of the precipitation is in the form of rain. Areas that do receive snow are within the rain-on-snow zone. The area experiences a typical Mediterranean climate, with warm dry summers and cool wet winters. Temperatures can range from highs in the 100 degree range during the summer to lows in the 30's during the winter. Topography in the area varies widely, ranging from low lying valleys in the south eastern portion of the fire perimeter to steep sided canyons in the Highway 175 and Big Canyon corridors. Slopes can vary from less than 10% to over 75%, but generally slopes within the fire perimeter range from 10% to 30%.

Table 2. CalVeg cover types for the Valley Fire area.

CalVeg Cover Type	Acres in Valley Fire Perimeter	Percent of Valley Fire
Agriculture (AGR)	7127	9.4
Barren (BAR)	301	0.4
Conifer (CON)	11187	14.7
Hardwood (HDW)	14136	18.6
Grassland (HEB)	5757	7.6
Hardwood/Conifer Mix (MIX)	18316	24.0
Shrubland (SHB)	18316	24.0
Urban (URB)	371	0.5
Water (WAT)	574	0.8
Total	76085	100.0

Fire History

Only 21 percent of the Valley Fire area had burned since 1950 prior to the Valley Fire; 19 individual fires have occurred in the last 65 years (GIS analysis using NICS layer; Mike Wink, CAL FIRE, personal communication). Recent fires in the Valley Fire footprint have included the 1985 Hidden Valley Fire, which burned 1032 acres in the footprint; the 1991 Geysers Fire, which burned 1582 acres entirely within the footprint; the 2000 Hidden Fire, which included 3593 within the footprint; the 2004 Geysers Fire, with 664 acres within the footprint; and the 2014 Butts Fire, which included only 40 acres within the Valley Fire footprint (Figure 2).

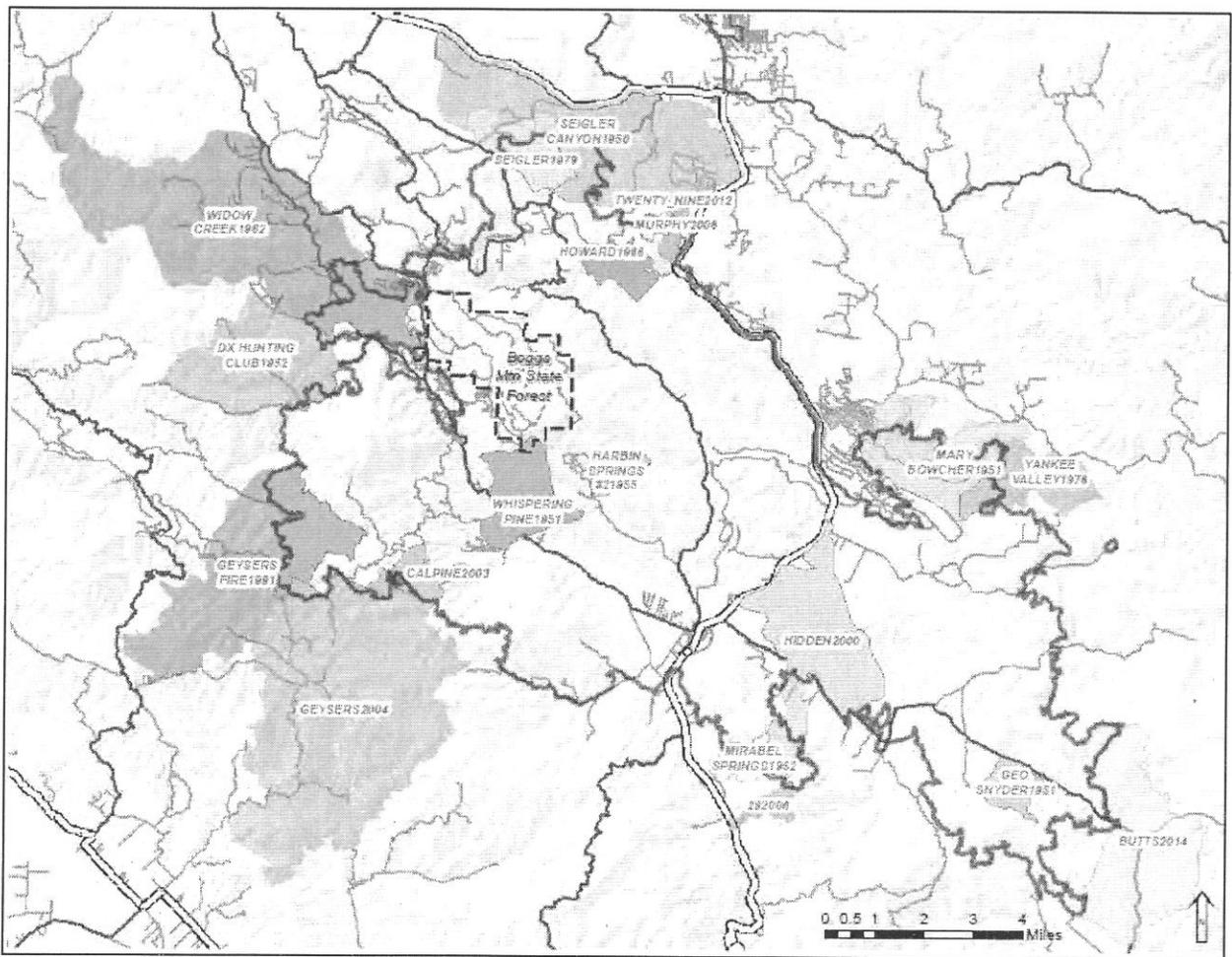


Figure 2. Fire history for the Valley Fire area.

Geologic Setting

The 2015 Valley Fire burn area is located in the north-central portion of the Coast Ranges geomorphic province. The Coast Ranges are northwest-trending mountain ranges and valleys that trend northwest, subparallel to the San Andreas Fault (CGS, Note 36). Topography in the Valley Fire area can generally be divided into three areas: (1) steep slopes drained by moderate to steep gradient watercourses in the northwest portion of the fire area in the area of Cobb and Boggie Mountain, (2) relatively gentle and flat ground that contain the Long Valley, Coyote Valley and Collayomi Valley areas in the central portion of the fire area, and (3) steep slopes drained by moderate to steep gradient watercourse in the southeast portion of the fire area in the area of Butts Canyon. Fault relationships in the area of the Valley Fire are complex, with numerous faults mapped within the burn area. A number of active faults, likely associated with the Clear Lake volcanic field are mapped immediately north of the burn area.

Note- Information on these pages was taken from a DRAFT document titled "Valley Fire Post Fire Emergency Response Team Report" dated October 9, 2015. No cultural resource data is contained therein.