

**HERITAGE RESOURCES MANAGEMENT ASSESSMENT  
FOR THE YOLLA BOLLY WILDFIRE (MNF-61-2008)**

**September 18, 2008**

**MENDOCINO NATIONAL FOREST**

**Description of Emergency:**

On the morning of Saturday, June 21, 2008, a series of lightning strikes ignited several fires in northern California. The complex included several separate fires; some of which ended up burning together. The individual fires covered within this complex include the Iron, Grouse, Vinegar, Harvey, Slides, Boswell, Sugarloaf, Thomes, Burnout, Johnson, Sunflower, Rattlesnake, Soldier, Gilead, Yellow, Jacket, Camp, and Wash fires. Being that most of the fire activity on our forest was in the Yolla Bolly Wilderness, most control lines were put in by hand crews in stead of tractors. The fire includes lands managed by Shasta Trinity and Six Rivers National Forests as well as Mendocino National Forest. This report documents efforts to protect archaeological properties on Mendocino National Forest alone.

As of August 11, 2008 the fire had consumed approximately 86,000 acres. The fire burned primarily through the mixed conifer zone but also covered some chaparral and oak woodland vegetation zones. Much of the fire intensity was low as much of the Yolla Bolly Mountains have bare soil and rocky crags precluding fire ignition. Many of the smaller fires were never really staffed; however, the several fires within the Yolla Bolly Wilderness burned together, leaving three large fires in the complex: The Grouse, Yellow and Vinegar fires (see Map 1). These fires are primarily within the Wrights Ridge and Solomon Peak 7.5' quadrangles. They occupy numerous sections of land within Townships 25N and 26N and Ranges 9W-12W (Maps 2a-e).

The purpose of this report is to document efforts to protect and document cultural resources from both fire suppression activities (ie. fire line construction, safety zones, drop points, helipads, etc.) and from the effects of the fire itself. Fire effects on cultural resources are generally documented separately in the Burned Area Emergency Response (BAER) report. Both suppression and BAER assessments are documented in this report.

**Heritage Resource Management Objectives:**

**Fire Suppression:** Strategies for protecting cultural resources prior to fire containment and control involved identification of existing and planned fire lines with a special emphasis on tractor lines (as opposed to hand lines), safety zones, drop points, spike camps, water holes, etc. These types of activities are potentially ground disturbing with potential to harm archaeological sites. Since wildfires are emergency actions, it is not always possible to avoid ground disturbance to archaeological sites. Initial attack (IA) involves quick deployment of fire suppression equipment (tractors, hand crews, aviation equipment, etc.) which frequently are implemented before an archaeologist can be on the scene.

In the event of a fire on Mendocino National Forest (MNF), our GIS site location data is generally provided to the resource advisor to help direct ground disturbing activities so as to minimize damage to known archaeological resources. Where possible, known cultural resources are excluded from ground disturbing activities. If time allows, and tractor lines, spike camps, etc. are proposed in un-surveyed areas with high potential for containing archaeological sites, surveys may be conducted prior to construction. The other component to assessing and protecting cultural resources during the fire suppression stage is to monitor cultural resources which appear on or directly adjacent to dozer lines, spike camps, safety zones, etc. The reason for this is twofold. Firstly, it is necessary to identify and quantify resource damage from fire suppression activities. This involves visiting potentially damaged sites and mapping the extent of resource damage on monitoring records. Secondly, it is necessary to identify sites on the ground (with flagging) so as to protect them from further damage resulting from fire line rehab (ie. water bar construction, etc.).

**BAER Assessment:** For BAER heritage resources assessment, the “Area of Potential Effect” (APE) includes the entire interior of the fire. Research has shown that wildfires clearly have the potential to damage or destroy heritage resources through: 1) direct effects of the fire; 2) ground disturbing suppression or rehabilitation activities; and/or 3) erosive soil movement caused by subsequent storm precipitation. These impacts may completely destroy historic and archaeological resources or alter the context of surface and subsurface remains vital to any scientific analysis or interpretation. Also, wildfires may increase the accessibility and visibility of archaeological site locations making them more susceptible to vandalism/artifact looting and unauthorized recreational activity. The Yolla Bolly Complex Wildfire, as well as activities associated with suppression and rehabilitation, all have the potential to directly or indirectly impact heritage resources located within the APE.

Specific objectives of the BAER evaluation include: 1) rapidly identify heritage resources impacted by fire and suppression activities associated with the fire; and 2) prohibit any damage to known Class I heritage resource sites from anticipated fire-related erosion, debris flows and/or rehabilitation treatments, as well as any increased potential for looting. Class I heritage resource sites are defined as those historic or prehistoric resources determined eligible for listing on the National Register of Historic Places (NRHP) per criteria 36 CFR 60.4. Also, Forest Service Manual (FSM) 2361 direction states that Class II sites, which are classified as heritage resource sites whose NRHP status is unknown or unevaluated, be afforded the same consideration and protection as Class I sites.

### **Background Heritage Resource Data:**

Preliminary research for heritage resource management began while fire suppression activities were underway. Heritage resource data was relayed by June 22 to resource advisors who were present on the incident. These data were initially generated from MNF heritage resource GIS layers and site records on file at the Grindstone Ranger District. These data were subsequently refined as information on the geographic extent of the fire was better understood. GIS location maps and copies of site records were available for all previously documented heritage resource sites within and adjacent to the APE.

Nine recorded archaeological sites appear to have been burnt over and several others are in the vicinity of staging areas, drop zones, etc. associated with the fire (Table 1). Another historic feature, the remnants of the Flournoy Cabin, lies within the confines of the Yellow Fire. It has not been formally recorded but reportedly dates to the 1920s. Heritage resources within the fire were prioritized for BAER field assessment based on site type, site constituents, fire history and burn severity.

Table 1. Cultural Resources in APE.

Site #	Trinomial	Type	Impact	Fire Severity	Activity	Comments
05-08-51-64	CA-Teh-1052	prehistoric	DP 3	unburned		Drop point
05-08-51-402	requested	prehistoric	Fire	low		
05-08-56-50	CA-Tri-450	prehistoric	none	unburned	monitored	Road bisects
05-08-56-53		prehistoric	Fire	low		
05-08-56-66	CA-Tri-466	prehistoric	none	unburned		
05-08-56-67	CA-Tri-467	prehistoric	Felled trees	unburned	Monitored & flagged	Road bisects (evaluate?)
05-08-56-68	CA-Tri-468	prehistoric	Felled trees	unburned	Monitored & flagged	Road bisects (evaluate?)
05-08-56-70	CA-Tri-470	prehistoric	Felled trees	unburned	Monitored & flagged	Trailhead
05-08-56-88	CA-Tri-449	Pre/hist	none	unburned	monitored	Cabin was foamed
05-08-56-466	CA-Tri-224	Pre/hist	none	unburned		
05-08-56-494		prehistoric	Fire	low		
05-08-56-495		Pre/hist	Fire	low-mod.		
05-08-56-628		prehistoric	Fire	low		
05-08-56-629		prehistoric	Fire	low-mod.		
05-08-56-630		prehistoric	Fire	low		
05-08-56-631		prehistoric	none	unburned		
05-08-56-632		prehistoric	none	unburned		
05-08-56-633		prehistoric	none	unburned		
05-08-56-634	Map4b	prehistoric	none	unburned		
05-08-56-635		prehistoric	Fire	low		
05-08-56-636	Map4a	prehistoric	none	unburned		Midden site
05-08-56-645		historic	none	unburned		Historic trail
05-08-56-646		historic	hand line	unburned		Historic trail
05-08-56-649		prehistoric	Fire	low-mod.		
Flournoy Cabin	unrecorded	historic	hand line	unburned		Fire line around cabin

Forest Service records indicate a sparse fire history, primarily in the wilderness area with fires in 1930, 1987, and more recently in 2006. Of course, there can be little doubt that prior to 100 years ago the vicinity experienced frequent fire events of low to moderate intensity. Thus, it is safely assumed that prehistoric sites in the area have experienced wildfire on a periodic basis. However, due to many years of fire suppression and the resulting occurrences of dense vegetation in some areas, recent fire severity may have risen well above what would have been the expected norm during the prehistoric era.

Of the twenty-five heritage resource sites located on Forest Service property within the fire APE, three are purely historic (including two historic trails), 18 are prehistoric and three are multi-

component (including the historic Indian Dick Station which contains a midden also). Most of the prehistoric sites are lithic scatters and small chert quarries. The area seems to be full of chert outcrops that were quarried by local Indian groups. The unrecorded Flournoy Cabin was constructed by the Flournoys in the 1920s. George Flournoy indicates that very little was there other than the cabin itself. A nearby spring was dug out but no other developments were made.

Only one (Indian Dick Station) of the heritage resources have been evaluated for significance under NRHP criteria. The NRHP-eligible historic cabin (FS 05-08-56-88) there was foamed and prepared for wrapping early on in the process but the fire never got close. All other sites are considered to be Class II heritage resource sites and are, therefore, treated as potentially eligible for listing on the NRHP.

### **Fire Suppression Heritage Inventory and Monitoring:**

Very little survey (Map Series 3) has been done in the Yolla Bolly Wilderness as the only ground disturbing projects there are confined to trail and trailhead construction and maintenance. The only survey included for this fire was a 30 meter wide path over the 1.7 miles of proposed dozer line (Map 3d), amounting to approximately 16 acres of new coverage. All coverage was intensive, centered on the flag line depicting the proposed fire line route. A minimum of 15 meters on either side of the dozer path center line was inspected. Most other fire lines were constructed with hand crews due to the wilderness location. They were not inspected. No sites were encountered.

Three sites with trees down inside of them were flagged to protect them from further damage from the rehab effort. They will be excluded from post fire suppression rehab which might involve slash piling, dragging and/or burning. None of these activities are allowed on site.

### **Heritage Resource BAER Assessment:**

Based on the fire intensity maps (BARC) and the vulnerability of each site in the burned areas, it was decided that BAER treatments for cultural resources were unnecessary. The only potentially vulnerable site, the Flournoy Cabin remains, was inspected on a low level flight and found to be unburned.

There is one area between Upper Glade Camp and the Haynes Delight area where the Georges Trail crosses through a very hot portion of the fire. Proposed rehab treatments to the trail could potentially damage un-recorded archaeological remains. This area contains some potentially sensitive archaeological ground. It is recommended that a two-person archaeological crew survey that stretch of trail (approx. two miles) for cultural resources prior to implementation of trail water barring.

### **Recommendations:**

The effects described above have likely resulted in the loss of information, and therefore, a loss of archaeological values that potentially could have contributed to the NHRP significance for many of these resources. However, none of these resources appeared to be eminently threatened

by further degradation due to erosion, storm runoff, debris flows, or a heightened risk of looting and/or unauthorized recreational access. Therefore, MNF Heritage Resource Management relays the following recommendations for the purposes of BAER assessment:

- 1) No BAER treatments are proposed for heritage resources within or directly adjacent to the Yolla Bolly Complex fires.
- 2) Locations where non-heritage related treatments are proposed will require review by MNF Heritage Resource Management prior to implementation. Heritage survey and site protection measures may also be required for proposed BAER treatment areas prior to implementation.

Compliance with Item No. 2 will ensure that any proposed BAER treatments within or adjacent to the Yolla Bolly Complex fires will have no effect on heritage resources.

Michael Dugas  
Grindstone District Archaeologist  
Sept 18, 2008