

**An Archaeological Survey Report for the
Mitchell Mine Fuel Break, Amador Fuel Reduction and Living in the Wildland Urban Interface
16 USFS-WUI 45412,
Amador County, California**

by:

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(April 2-2018)

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Prepared for:
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Part 1: Project Information

Project Number: Grant No. WUI 16 USFS-WUI 45412.

Name, address and telephone number of the Archaeologist and the RPF: Same as above

Name of CAL FIRE Project Manager: Tom Tinsley, AEU Forester 11.

Project Size (acres): 150.6

Name of 7.5' USGS Quad Map: Pine Grove.

Name of Landowner: See attached landowner list.

Legal Location: Portions of sections 1 & 2, T6N, R11E
Portions of sections 25 & 36, T7N, R11E
Portions of sections 3, T6N, R12E
Portions of sections 26, 27, 28, 29, 30, 33 & 34, T7N, R12E, all of MDB&M.

Project Description:

SCOPE OF WORK

Mitchell Mine Fuel Break Statement of Work

The Mitchell Mine Fuel Break will be constructed as a linear feature approximately 300 feet wide and approximately 7.75 miles long north of the town of Pine Grove. Starting on the east end at Highway 88 north of the junction of Aqueduct road and running north and west to the intersection of Ridge Road and Hammerick Grade Road. The fuel break generally runs along the major ridge lines. The Mitchell Mine Shaded Fuel Break will be constructed using a combination of treatments. The objective of the treatment is to reduce surface and ladder fuels, and to achieve canopy spacing to mitigate the threat of wildfire to private property. This project entails removing small trees and brush to create a Fuel Reduction Zone or shaded Fuel Break located on both improved and unimproved residential parcels. The Amador Fire Safe Council has been granted permission from several of the private landowners at this point. Much of the general project area has been marked with orange and black strip flagging on the ground with the intent that the contractor will treat an area of up to 300 wide. Work will be done outside the required defensible space of 100 feet around homes.

Hardwood stands with a high percentage of oaks can provide excellent food and cover for wildlife. The proposed project will retain live trees with cavities for squirrels, raccoons, and other cavity dwellers. Contractor may leave downed oak limbs and decaying logs when vegetation is lying in a position not to threaten ignition of adjacent trees or shrubs.

Snags prove excellent wildlife habitat in their natural state, so dead standing trees (snags) will be left to provide insects and nesting cavities for birds. Snags should not be taller than 30 feet in height, or capable

of reaching a home or road. Adjacent trees will be treated so canopy cover is spaced at least 10 feet apart. Snags that have fallen and become decayed will be considered for leaving to provide for diversity.

Treatments

Mastication: The use of rubber tired or tracked vehicles to cut, chip, and scatter all shrubs and small trees up to 9" Diameter at Breast Height (DBH), 4 1/2 feet above the ground on the uphill side. Trees should be spaced approximately 20 feet between the boles. Trees in order of importance and to be retained on site if possible: 1) California buckeye, 2) Large Oak trees. Retention of these trees is important, but meeting the spacing requirements is a more important consideration. All trees not mechanically treated within the project area will be limbed up to 10 feet above the ground surface, leaving tree crowns with at least 1/3 live crown ratio. Brush cover should be reduced by creating a mosaic of treated and untreated shrubs. Openings between shrubs should be twice the height of the shrubs and 80-90% of the shrubs should be treated. No individual pieces of cut material should be greater than 4 feet long. All masticated stumps shall be cut to within 3 inches of the ground pieces of masticated material should average 2 to 3 inches in length and no material should be left larger than 3 feet long. The Contractor is required to follow all of the California Forest Practice Rules.

No mastication debris should average more than 4 inches in depth over the entire project area. All cut vegetation shall be kept within the unit boundaries. Any cut vegetation falling into ditches, roads, road banks, trails, or adjacent units shall immediately be removed.

Hand Thin: Will need to be done on ground steeper than 40 percent to prevent soil erosion. Trees leaning into powerlines along powerline corridors will be roped and pulled for felling and all the brush cut. Hand thinning should be accomplished using a hand crew with chainsaws. The contractor will be required to cut material up to 9" at breast height with 20' spacing between leave trees. All brush species will be cut. Brush and small trees that are treated shall be cut to a maximum of 3 inches stump height, all uncut trees will be limbed up to 10 feet above the ground and limbed material treated by chipping or burning. Trees to be retained on site if possible: 1) California Buckeye, 2) large Oak trees, 3) Large conifer trees. Retention of these trees is important, however meeting the spacing requirements is still the most important consideration within the fuel break.

Chipping: Chipping is the preferred method of disposal of hand cut material and will be used as an alternative to burning near homes and where access permits the chipper to be brought close to the cutting area. Chips will be distributed over the landscape with an average depth of no more than 4 inches.

Pile Burn: If the contractor selects pile burning the contractor will be required to do the following:

Starting with the smallest diameter trees, remove trees up to 6 inches dbh to achieve spacing of 20 feet between residual crowns. All dead and down material greater than 3 inches in diameter and up to 8 inches in diameter and all cut material regardless of size should be piled for burning. Piles should be constructed

compactly, beginning with a core of fine fuels and minimizing air spaces to facilitate complete combustion. Piles should be constructed away from trees to prevent damage when burning and piles should not be taller than 5 feet. Each pile will be lined with fire line to mineral soil up to 3 feet wide. Piles will be covered with water resistant paper, a 4'x4' square to cover the fine material in the center of the piles. Contractor will be required to get all necessary permits for burning and burn the piles at the direction of the project coordinator after the rainy season has started. Contractor will be required to have an engine on site during the burning and to provide a small engine for patrol. As the piles burn down the contractor must push the unburned material on the inside of the fire line into the pile to burn up all pile residual.

Contractor must tend the burning piles until they completely burn out and no heat is detected using an approved heat detector. The contractor will assume all liability for burning

The contractor will be responsible for burning the piles and following all the requirements of CALFIRE, the local fire district, and Amador County Air Quality Management as it relates to pile burning.

Part 2: Archaeological Records Check Information

Date of Records Check Conducted by Information Center: January 12, 2018.

Information Center File Number: AMA-18-1.

Summary of Records Check Results: Within the search area of the project the information center reports one prehistoric resource and twenty six historic resources. The record search area was much larger than the actual project area, this was done to allow us to see all affected parcels. Within the project area the records search shows portions of ditches which is site P-03-000521 and one area of site P-03-001300 which is a prospect pit, these are the two sites of the above 26 which are within the project boundary. Additionally the records check shows one pre-historic site which is site P-03-000769 which is a single chert projectile, however this site is located on the south side of the highway and is therefore not within the boundary of the project. Historic site P-03-001911 and historic site P-3-770-H are located adjacent to the project and as such could extend into the project area. The area to the north of site P-03-001911 and to the north of site P-3-770-H will be thoroughly checked during this survey.

Records Check Request, Map, and written reply from the Information Center are attached

Records Check Not Attached

Justification:

Part 3: Native American Consultation Information

List of Native American individuals or groups that were provided notification:

Native American Heritage Commission
1550 Harbor Blvd., Room 100
West Sacramento, CA 95691

Ione Band of Miwok Indians
P.O. Box 699
Plymouth CA 95669-0699

Wilton Rancheria
9728 Kent Street
Elk Grove, CA 95624

Buena Vista Rancheria
1418 20th Street, Suite 200
Sacramento, CA 95811

Briana Creekmore
1910 S California St.
Stockton, CA 95206

Jackson Band of Miwuk Indians
P.O. Box 1090
Jackson, CA 95642

Randy Yonemura
4305 39th Avenue
Sacramento, CA 95824

Date of the CAL FIRE Native American Contact List that was used: January 2-2018.

Date notification was sent: January 22, 2018

Results of Information request:

- No reply received as of
- written reply received (copy attached). Native American Heritage Commission reply attached.
- verbal reply received (summarize reply below): Phone conversation with Rolly Fillmore of the Jackson Rancheria on 2-12-18. He requested that if native American sites are discovered they would be notified. Additionally he requested to be part of any tail gate meetings with contractor if practical.
- Native American archaeological or cultural sites have been identified within the plan.

Part 4: Pre-Field Research

Literature Reviewed:

Archaeological Records Check dated January 12, 2018 by the North Central Information Center at California State University, Sacramento.

Archaeological Survey Report # 011974 for the Pine Grove WUI fuels reduction project. Author, James Barnes of the Bureau of Land Management.

CDF-CLFA Archaeological Training Program Reference Manual and Study Guide Volume 1 and 2 assembled and edited by Daniel G. Foster Senior State Archaeologist, Calif. Dept. of Forestry and Fire Protection, dated June 2001.

1996 Archaeological Training Manual assembled and edited by Daniel G. Foster, Associate State Archaeologist.

1991 Archaeological Training Session For Resource Professionals: Sierra Nevada Locality Referene Manual and Study Guide assembled and edited by Daniel G. Foster, Associate State Archaeologist..

Government Land Office (GLO) plat map, dated 1870.

California Historical Landmarks by the California Department of Parks and Recreation and the Office of Historic Preservation.

Handbook of the Indians of California by A.L. Kroeber 1925.

The Pine Grove USGS 7.5' Quad map.

Discovering Prehistoric Sites: Objective and Subjective Survey Techniques by Daniel G. Foster, Brian D Dillion and Linda Sandelin California Department of Forestry and Fire Protection. Revised date: May 6, 2005.

Suggestions for Recognizing Sites and Artifacts Pre-Class Primer, By Sharon A. Waechter.

Native American Consultation Procedures For CDF Projects, By Daniel G. Foster Senior State Archaeologist California Department of Forestry and Fire Protection, Date Revised: September 13, 2002.

How Old is Old? Recognizing Historical Sites and Artifacts, by Sharon A. Waechter Far Western Anthropological Research Group, Inc.

Suggestions for Prefield and Postfield Research Supporting Archaeological Surveys of CDF Projects by Brian D. Dillion, Daniel G. Foster, Linda C. Pollack and Charles Whatford. Revised Date: June 12, 2006.

Persons Contacted: Amanda Watson, Jan Bray and John Heissenbittel with the Amador Fire Safe Council. Thornton Consolo Director with the Amador Historical Society. Teresa Guidi Administrator with the Amador County Records/Archives Division. Nathan Hallam, Coordinator for the North Central Information Center.

Summary of Results of Pre-Field Research:

The final project boundary is much smaller than the area searched in the records check. It was decided to include all parcels that could potentially be included in the project in the record check to get a broader look at the resource potential. The goal of the project is to provide an approximately 300 foot wide fuelbreak on the north side of the town of Pine Grove generally along the main ridges. However, not all landowners wanted to be part of this project. Therefore, with the landowners not willing to give permission for the project to go forward found at various locations and the narrowing of the project to approximately 300 feet in width, the final project area was found to contain two known historic sites and no known prehistoric sites.

In summary, the above research indicates to the surveyor that a high level of sensitivity for the existence of historic gold rush era artifacts is present throughout the proposed project area. During project implementation every effort should be made to work with the contractor to ensure that they are aware of the likelihood of there being undiscovered sites present, and that any undiscovered sites would be protected by site avoidance.

Project Area Background

Prehistorically speaking Amador County lies within the ethnographic territory of the Miwok people. The project area itself lies within what is known as the Transition zone of the Sierra Miwok (Barrett and Gifford, 1933). This zone is described as having sparse habitation with some seasonal movement. This mid elevation (2,000' – 3,000') zone did have a number of permanent villages or campsites. A good example of these permanent villages can be found at the Indian Grinding Rock State Park which is located in the area of this survey. At the higher elevation (east end of the watershed) zone, the harsh winter conditions of cold weather and snow made it difficult (Barrett and Gifford, 1933). There is a higher likelihood of running into temporary hunting and gathering camps at these zones. These smaller camps are often found next to steeps and springs, and with these camps you will frequently run into bedrock milling stations (B. Dillion, 1992). Any of the larger village sites would be found along the tops of ridges or at major confluence's of streams, such as what is found at the location of the Indian Grinding Rock Park Site. The shelters used within this territory were built mainly out of cedar bark (Levy, 1978) and outhouses are not found much higher than 2,500' in elevation. Some of the larger sites could have a semi-subterranean style assembly hall, used for ceremonial purposes where the whole village would participate, such as the one constructed at the State Park. Many of these sites described above would have a midden association showing continued use over a period of time.

The main staple of the Miwok were acorn crops from black oak found scattered throughout this range. The acorns would be collected in the late fall, early winter in burden basket and occasionally stored up into the following fall. The women prepared the fruit by grinding it into a mash and then rinsing the mash several times with hot or cold water to leach out the inherent toxins (Barrett and Gifford, 1933). The byproduct would either be eaten as a mash or baked into bread. What has been left behind and is evident today, are

the bedrock milling stations used to grind the acorns. The grinding of acorns into the bedrock has left smooth mortar holes. Many times the stones, or pestles, used for grinding are found near the bedrock mortars.

Wild game was also a staple and would be hunted or trapped. Big game was mostly deer and some bear, small game rabbits, or salmon and trout (Barrett and Gifford, 1933). In the late summer, fires were set to burn the underbrush to improve hunting Conditions, this also would help bring in a larger acorn crop. Camps would move to higher elevation in the summer months to follow the deer migration. The tools used to hunt and fish can be found throughout this region. This would include arrowheads, arrow straightener, fishhooks or scraping/shaping tools.

Much of the historical background of this region revolved around mining and timber production. In 1848 gold was discovered in what was to become El Dorado County (B. Dillion, 1992), Timber milling had begun around 1845 in this area (B. Dillion, 1992), but it was the gold rush that created the population boom. El Dorado County was one of the regions first to be exploited by this discovery. "Placer" mining was the early method used to extract gold, typically accomplished through panning, sluicing or rocking. Later hydraulic mining was used when the rivers had been panned dry. By the late nineteenth century timber production had replaced gold mining as the moneymaking venture of the area.

What can be found today are the indications of these early activities. Remnant camps, both mining and logging, are scattered throughout Amador and El Dorado Counties. Some structures (Cabins, powder houses, etc.) are still standing from this period. Trash piles or can dumps from these camps have been left behind. Water conveyance ditches used to transport water for hydraulic mining are spread throughout this region.

Located in the vicinity of this project are several gold mines that were worked during this early period. These mines are located in what is known as the Volcano and the Pine Grove Historic Mining Districts. There are few visible remains of this mining activity, rock alignments poking up above the grass, piles of gravel and mine tailings along the creeks, remnants of dams and ditches, caved-in mine shafts, small leveled spots that were once homes, and the lost, broken, or discarded objects from everyday life (Pacific Lacy Inc.2001). Undoubtedly the mines in the general area (Tellurium, Mitchells, Sirocco, etc.) contributed to the prosperity of the towns of Volcano and Pine Grove. These mines reportedly worked since the 1850s and were all closed by World War II.

Part 5: Training and Experience of Archaeological Surveyors

Name of current Archaeological Surveyor(s): Thomas W. Lowry

- Archaeological Survey conducted by Professional Archaeologist.
- Archaeological Survey conducted by person with current CDF Archaeological Training

List of Archaeological Training Courses completed by surveyor:

CDF Archaeological Training Course # 150R Redding.
Date Training Course was completed: April 21, 2016.

CDF Archaeological Training Course # 127R Redding.
Date Training Course was completed: October 10, 2011.

CDF Archaeological Training Course # 106R Redding.
Date Training Course was completed: October 26, 2006.

CDF Archaeological Training Course # 99R Blodgett.
Date Training Course was completed: September 11, 2006.

CDF Archaeological Training Course # 73R Weed.
Date Training Course was completed: June 19, 2001.

CDF Archaeological Training Course # 45R Burney.
Date Training Course was completed: September 24, 1996.

CDF Archaeological Training Course # 19 Blodgett.
Date Training Course was completed: September 25-27, 1991.

CDF Archaeological Training Course # 13 Ukaih.
Date Training Course was completed: March 18 & 19, 1987.

CDF Archaeological Training Course # 9 Fresno.
Date Training Course was completed: January 16 & 17, 1986.

(X) Archaeological Survey for previous project within site survey area previously conducted by
(provide name):

Archaeological Site Records previously conducted by: James W. McDaniel, Jr., Western Timberlands
Consulting and C. Francis and S. Davis-King, Davis-King and Associates.

Part 6: Survey Methods and Procedures

Survey strategy: The final fuel break area includes only those portions of parcels that contain the fuel break where the landowners that wanted to participate in the project gave the fire safe council permission to do so. However, not all landowners wanted to participate in the project. Additionally, the final project boundary was made to be approximately 300 feet wide. The project area was covered with a complete reconnaissance survey. A careful search for midden, basalt flakes, groundstone tools, obsidian, etc., as well as inspection of boulders and rock outcroppings for milling features was done with particular attention given to the area just north of site P-03-000769. A careful search for historic remains was also conducted with particular attention given to the area just north of site P-3-770-H and P-03-001911. A fairly large mining site Mitchell Mill, is located in the vicinity just south of this project and could possibly extend north onto this project the surveyors will insure that every effort is made to not overlook potential historic resources in this area. As a result of the pre-field research and the record search it is more likely that historic resources would be discovered on this project. The survey should focus on such features as: tailings, adits, tunnels, shafts ditches and old iron artifacts associated with mining.

Time spent conducting archaeological field survey: 13 days or approximately 47 hours.

Date or Dates the survey was conducted: March-5,6,7,8,9,15,16,18,19,20,22,26& 27-2018..

Survey coverage intensity: The level of archaeological survey coverage intensity for the project was complete with transects at approximately 75 feet apart. The transects were done using a GPS for location and portions of the boundaries were flagged at this time to ensure the survey was at the proper location. The transects were laid out in a east-west direction as that is the general lay of the project boundary.

Ground visibility/other limitations: Soil visibility was good within the project area. Most of the survey area is covered with grass and light brush under a mainly oak and pine canopy. However, there are some small

areas of heavy brush but these areas can mostly be walked through and even in these areas the soil visibility is good.

Other relevant information:

Part 7: Survey Results

List and description of all sites found: Two historic sites noted in the info center reply were located and were found to be within the boundary of the project. These sites are listed below. The remaining other historic sites noted in the info center reply were found not to be within the boundary of this project. The one pre-historic site P-03-000769 was found not to be within the project boundary as well. A search was made north of this site but no evidence of this site extending south onto this project was found. Additionally, two historic sites P-03-001911 and P-3-770-H are located adjacent to the project to the south and a search was made for evidence of these sites extending north onto the project area but nothing was found. Additionally, three other sites were found within the project and they were recorded and site records are attached. A brief site list with descriptions for the two previously recorded sites as well as a list of the new sites that were found to be within the project boundary and recorded is as follows:

Existing Sites

Primary No.	Description
P-03-000521	Water conveyance system, ditches.
P-03-001300	Prospect pit.

New Sites

- Gold Rush Era Mine Excavation Area #1
- Gold Rush Era Ditch Site #2
- Gold Rush Era Ditch Site #3

Part 8: Evaluation of Significance

Preliminary determination of significance of listed sites (if required): N/A. All above sites will be protected and as such a determination of significance will not be necessary.

Part 9: Protection Measures

Specific enforceable protection measures: All of the above five listed sites have been flagged with orange and white stripe flagging that says "Special Treatment Zone" for site identification. A pre-operations meeting on site will be conducted with the contractor prior to operations and the sites will be shown to the

contractor and the protection measures will be discussed. Burning will not be allowed within 25 feet of the sites. Additionally, equipment will not be allowed to operate within the boundary of the sites or within 25 feet of the boundary of the sites. Only hand work will be allowed within the site area and within 25 from the site. These protection measures should allow these sites to remain undisturbed.

Part 10: Site Recording

- () No sites found within the site survey area.

- (X) The following sites have been recorded and completed records are attached:
 - Gold Rush Era Mine Excavation Area #1
 - Gold Rush Era Ditch Site #2
 - Gold Rush Era Ditch Site #3

- (X) The following sites were previously recorded, updates not prepared (attach copy(ies)):

Primary No.	Description
P-03-000521	Water conveyance system, ditches.
P-03-001300	Prospect pit.

- () The following sites were previously recorded, updates prepared (attach copy(ies)):

- () The following sites will not be recorded, justification provided below:

Part 11: Other Applicable Information

Additional Information:

Part 12: List of Attachments

- (X) Archaeological Records Check Request
- (X) Archaeological Coverage Map (1:1 scale of USGS 7.5' quad)
- (X) Archaeological Records Check Request Map
- () Additional Archaeological coverage map(s)
- (X) Information Center Reply
- (X) Project Vicinity Map

Example of Notice(s) to Native Americans

Written reply from Native Americans

USFS or other Agency Correspondence:

Site Records

Other: Landowner List

Photographs

Part 13: Professional Review and Approval

Signature of CAL FIRE Archaeologist

Date Signed:

Printed name:

Title: