

Field Trip May 31, 2017

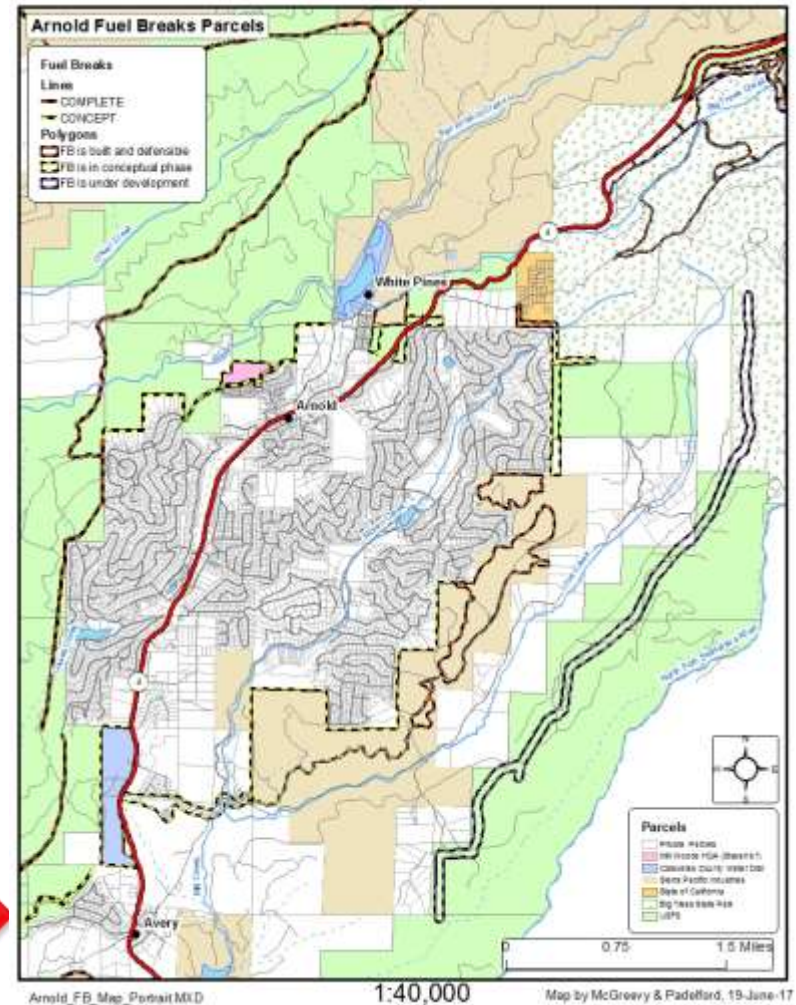


Irish O'Manuel Fuel Break and Tree Mortality Mitigation in Arnold
Hosted by Calaveras Ranger District (CRD), Hathaway Pines

Ebbetts Pass Fire Prevention Program

❖ Fuel breaks maintained by USFS, SPI, Big Trees & HOAs

- Most are ~300-foot wide buffers along roads
- Also fuel reduction projects at landscape level
- Arnold area has a fire protection plan with fuel breaks and landscape restorations along the WUI that will surround the community's 4900 homes when complete



Maintenance Information

❖ **Cycle:**

- In the Arnold area, it takes 5-7 years for understory fire fuel, brush and saplings, to reach a height of 5 feet.
- Must retreat every 5-7 years.

❖ **Operations:**

- Environmental studies and prescription required before treatment
- Preferred methods are controlled burns, mastication and hand treatments

❖ **Other work being done:**

- Calaveras Big Trees SP – 6500 acre landscape restoration project
- SPI – timber and salvage harvest plans on the WUI



What does it cost?

❖ Hand Crews:

- Costs \$2,500/acre to cut surface and ladder fuels
- Brush is either chipped or stacked in 4'x4' piles to be burned during the wet season
- Cost increases with slope and density of brush
- CRD contracts locally for hand crews to cut and pile or uses CDC inmate crews for brushing and burning
- Hand crew of 15 workers can cut and chip 1 ac/day on level ground and ½ ac/day on steep slopes



❖ Mastication:

- Costs \$1,800/acre
- CRD contracts locally for services
- Masticators can operate on slopes <30% and treat 3 ac/day
- Operate in dry season to prevent soil damage



❖ Prescribed burning:

- Costs \$1,800/acre
- Constrained by limited resources, the CRD can burn 250 ac/year. In contrast, the Amador Ranger District can burn 1,000 ac/year
- Can only burn on days OK'd by Air Quality Control Board when temps are 52 -70° F, wind speed is <11 mph and fuel moisture is 6-10%
- Typical burn day is 8AM-7PM followed by all-night patrols



Irish O'Manuel Fuel Break Site Visit



❖ Cornerstone Project

- NE WUI of Arnold; protects Hathaway Pines, Avery, Arnold and White Pines
- Fuel break width is 250'-350'
- Surface is bare ground, bear clover and grass often shaded by tall conifers

Land Use:

- Area receives heavy use by motorized OHVs and campers
- Source of ~5 fire ignitions per year
- CAL FIRE protection area; CAL FIRE suppresses fire under contract with USFS

Facts:

- OHV staging area was treated with prescribed fire in 2014
- Drought and beetle infestation have complicated fuel break maintenance
- Canopy fires in standing dead trees release embers that can fly to Arnold
- Dead trees are felled and decked prerequisite to prescribed burns

Tree Mortality Salvage Project



❖ 2016 Hazard Tree Sale to remove dead trees

- ~3M board feet of lumber milled by SPI; equivalent to 300 log loads or 200 homes
- Logs <10" diameter, tree tops and branches left on-site in big piles
- Slash will be hauled to Phoenix Energy's biomass powerplant in Merced
 - Biochar is a bi-product of the Phoenix gasification process
 - Biochar will be hauled back to Arnold and spread over 40 ac at a 1" depth
 - USFS soil scientists will compare pre- and post-treatment soil fertility to determine benefits of biochar in our coniferous forest

Wonderful Field Trip! Thanks!



Lily was enchanted...

Thanks to our CRD hosts:

- Jon Lucas, Fuels Manager
- Dave Vosti, Forester

Additional thanks to Pat McGreevy for taking notes and writing a report of the field trip.

The full report can be found on the ACCG web site: <http://acconsensus.org/>

