



POST-TREATMENT ASSESSMENT ULB



TEAM 24



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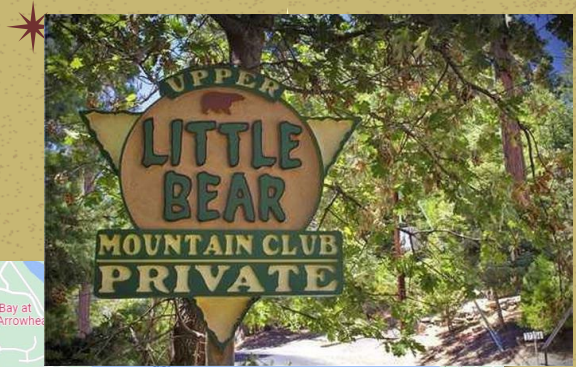
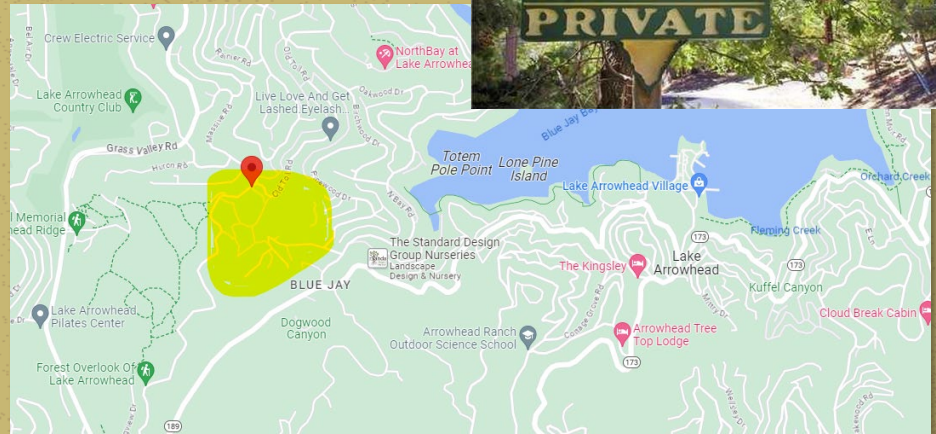




INTRODUCTION

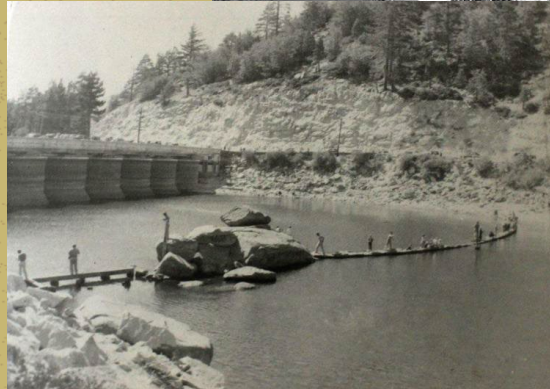
Upper Little Bear Mtn. Club: Location & Size

- In the Lake Arrowhead area
 - Near the town of Blue Jay
- 15 miles from Hume SoCal
- 40 acres of undeveloped forest
- 5,200 feet elevation
- Mixed conifer-oak forest
 - Ponderosa Pine
 - Jeffrey Pine
 - White Fir
 - Incense Cedar
 - Sugar Pine
 - California Black Oak
 - Live oak species



Upper Little Bear Mtn. Club: History

- **1890** – Redlands and Rialto propose diverting natural river flow from north to south to expand citrus groves
- **1913** – Court decision prevented diverting water
- Purpose was altered to create a recreational community
- Dam was built for then Little Bear Lake, now named Lake Arrowhead (1922)



Little Bear 3

San Bernardino, CA

Started
n/a

Finished
in ~2 days

Cruised by
Stud... Ⓢ

Acres
19

Plots
27

0%
complete

Plots
measured
by day

Current merch specs: [Standard Use](#)

Switch to:

Go!

Instructions: *Combine with other map cruises to create upper little big bear cruise*

[Download cruise KML](#)

[Download cruise SHP](#)

[Download cruise GPX](#)

[Download in progress data](#)

[Assign Plots](#)

[Upload cruise](#)

[Merge with another cruise](#)

[Delete Cruise](#)

[expand](#)



Plot	Status	Collected	Cruiser	Sampling Method	Notes	Trees
1	pending	n/a	Stud... Ⓢ	1/10 acre	n/a	no trees
2	pending	n/a	Stud... Ⓢ	1/10 acre	n/a	no trees

The Plot Locations

ULBMC FUEL REDUCTION PROJECT & SPECIFICATIONS



Reduction Project

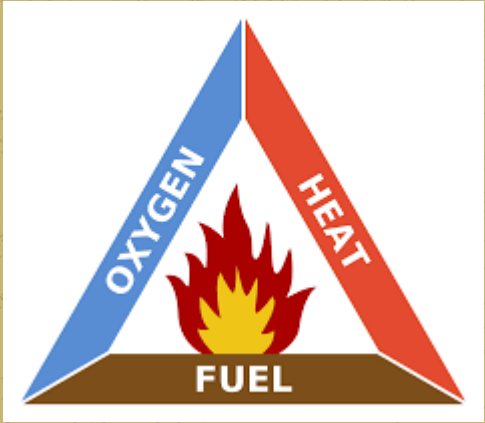
Program created by CAL FIRE in reaction to an increase in intense fires to manage projects at no cost to communities and reduce fuel on the 40 acres of developed ULB forest. Previous treatments have occurred, three times, so it is considered maintenance-reentry. Work began in Oct 2021.



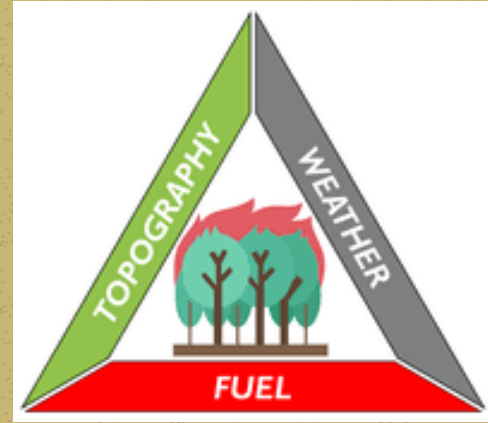
Specifications

- Thin trees under 12" DBH
- Prune branches to 8' or 1/2 of tree height
- Remove vegetation under drip-line of trees
- Remove dead/dying/diseased trees, leaving snags
- Chip or cover bark beetle infested wood
 - Remove 85% of brush
- Space retained brush ~ 2.5x fuel height

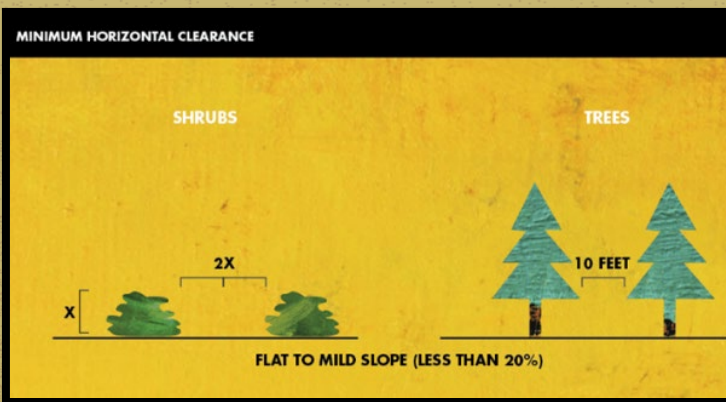
Fire Behavior



Fire Triangle



Fire Behavior Triangle



FIRE BEHAVIOR

Tree Crowns

Ladder Fuel

Surface Fuel

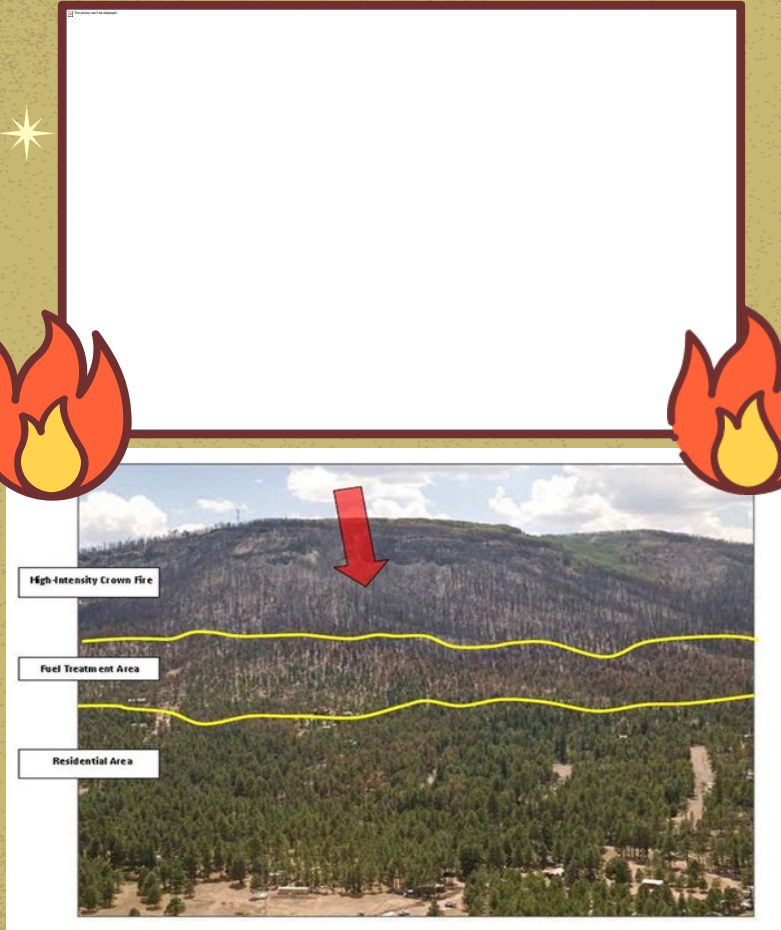
1 Surface fires spread quickly through brush and woody debris.

2 Ladder fuels allow the fire to move up toward the forest canopy.

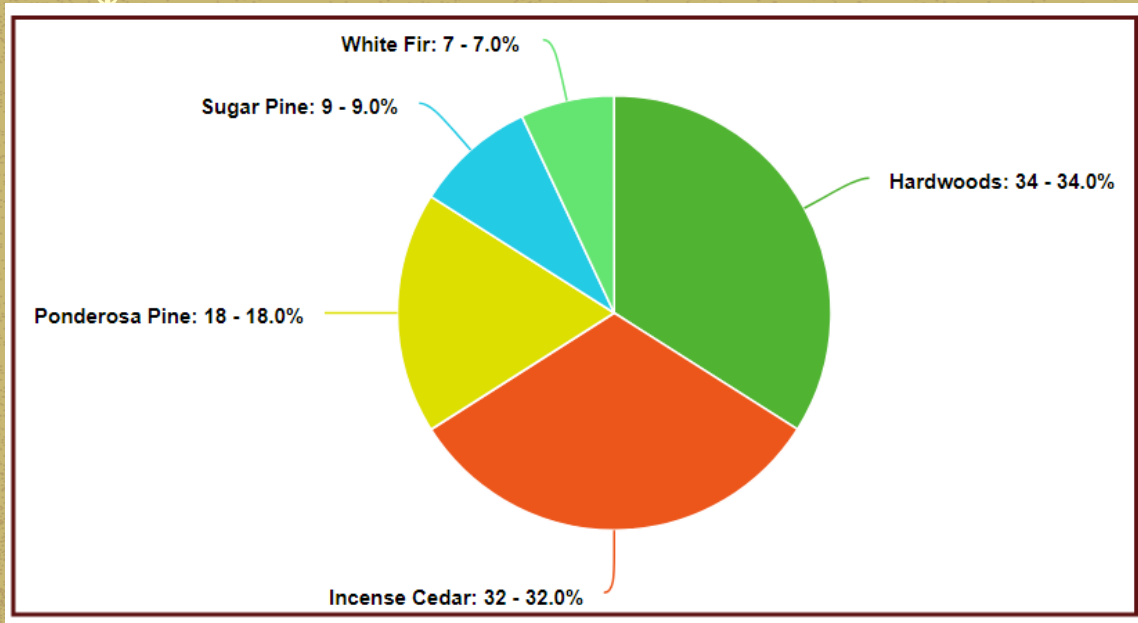
3 Tree crown fires are so intense, they're difficult to control.

In a forest where fires rarely happen, fuel builds up: There's **surface fuel** (grass, logs, woody debris, brush); **ladder fuel** (shrubs, small trees, snags); and **tree crowns**.

FUEL REDUCTION IS VITAL IN WILDLAND URBAN INTERFACES



THE DATA

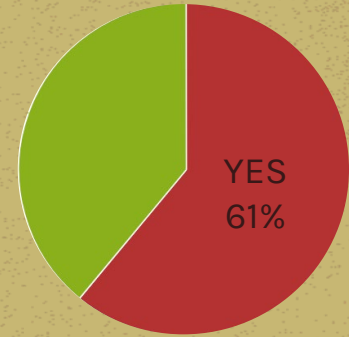


- 37 plots - 321 trees total
- 87 Trees per acre
- Basal Area using DBH = 189 sq ft/acre
- Basal Area with angle gauge = 168 sq ft/acre
- Avg 3.8 dead trees per acre

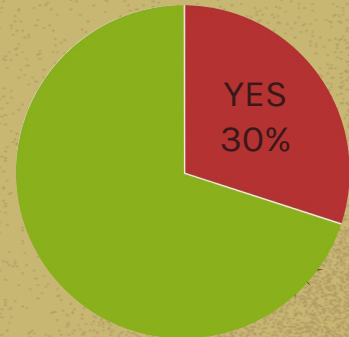
THE DATA

PROJECT ASSESSMENTS	Trees with canopies touching	Trees pruned 8 ft/half of height	Dripline vegetation removed	Small trees with 20 ft spacing
YES	86%	51%	48%	57%
NO	14%	14%	52%	43%

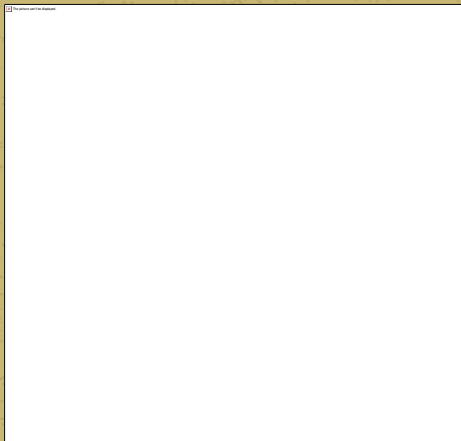
CANOPY COVER



BRUSH COVER



- Growth rings width 0-10 years = 1.71 inches
- Growth rings width 10-20 years = 1.70 inches
- Avg Brush Height = 3 feet
- Percent shrub plants separated by 2.5 times to adjacent shrubs = 40%
- Beetle Infested plots = 6
- No beetle infested plots were covered in plastic



COMPARISONS: DATA VS OBJECTIVES



100%

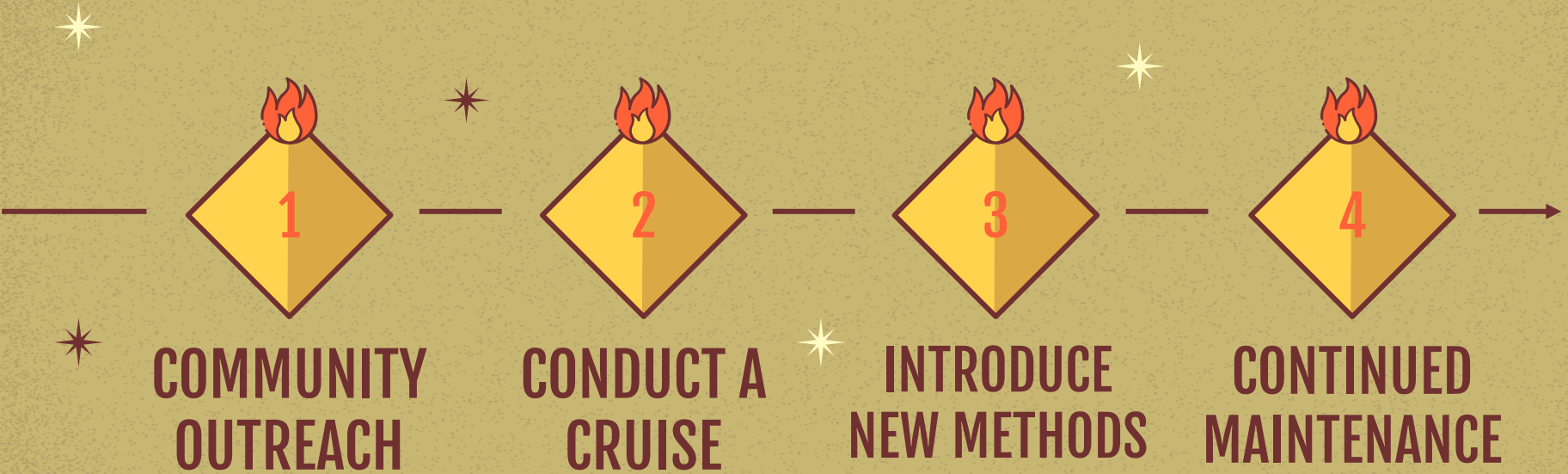
PERCENTAGE OF TREES
THAT NEEDED TO REACH
OUR GOALS



50%

PERCENTAGE WE
ACTUALLY MET

TIMELINE FOR FUTURE TREATMENT: STEPS



Fire Prevention and Future Plans



Here to Inform YOU and Your
NEIGHBOR

Herbicides



Can **reduce** disturbance in the forest if used responsibly and cheaper than other methods

Prescribed Fires



Can help **reduce** the intensity of a wildfire by burning away surface fuels

If you have any more questions, contact us at
(xxx) xxx-xxxx or come to the **town hall**
meeting on **Monday at 7 pm**



01

Chipping and Burning Slash

Reduces risk of a beetle infestation.

Step 3: New Methods

02

Herbicides

Efficient way to reduce vegetation and can have limited effect on an ecosystem when used responsibly



03

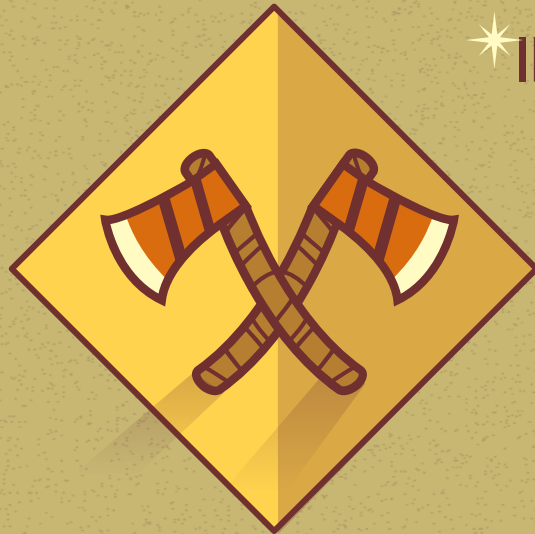
Prescribed Fires

Burn surface fuels to decrease risk of intense wildfires

STEP TWO: CONDUCTING A CRUISE

IDENTIFY AREAS OF HIGH PRIORITY

Better allocation of time and energy
“You’re not going to be able to treat 100% of everything.” – Jarrod Powden, professional forester (no RPF)



IDENTIFY SPECIES THAT NEED CONSERVATION

White Firs and Sugar Pines had low populations
Manzinita Shrubs should be left for wildlife

CONTINUATION OF MAINTENANCE

TREATMENTS

Only **3 treatments** were done in the past **20 years.** – Ian McBride, RPF 3170

Prescribed fire, herbicides, thinning and chipping should be done **annually.**

Thinned trees and shrubs will eventually grow back.

CRUISES

Should be done before and after treatment. – Samantha Conn, Forester (No RPF.)

Cruises will help determine how effective treatments are.

Eventually, we can reduce the frequency we do treatments and cruises.



A campfire with logs and stones in a forest setting. The fire is burning brightly, with orange and yellow flames. The background is a blurred forest with trees. The image is decorated with a diamond border at the top and bottom, and several starburst graphics scattered throughout. The word "CONCLUSION" is written in a bold, white, sans-serif font on the right side of the image.

CONCLUSION