

Elkhorn Fire – Pima Pineapple Cactus Disturbance Clearance



July 21, 2009

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Background

The Elkhorn Fire was believed to be human caused, starting on June 11, 2009. The fire burned out in mid to late June and encompassed approximately 23,440 acres. Ranches affected by the fire are; Elkhorn, Baboquivari, Santa Margarita, Los Delicias, Buenos Aires National Wildlife Refuge (BANWR) and the Tohono O' Odham Nation. Land ownership that was affected by the fire is as follows (Figure 1):

State Land:	12,669 ac
BLM:	1,806 ac
USFWS:	2,696 ac
Deeded:	4,305 ac
Tribal:	1,964 ac

Fire behavior was generally minimal and slow-burning with a few hot spots and flame ups. The majority of the fire stayed on the Baboquivari Mountain range, falling between Townships 18, 19 and 20 South, Ranges 7 and 8 East. Vegetation types burned were Chaparral & Shrub dominated fields in the higher elevations and Grassland dominant fields in the lower elevations.

Pima Pineapple Cactus Survey

A post-burn Pima Pineapple Cactus survey was concluded on July 13, 2009 by Katie Cline of the Natural Resources Conservation Service and David Seibert of the Altar Valley Conservation Alliance. Before the actual survey took place, survey guidelines were developed to minimize bias and maximize time efficiency. These guidelines are as follows:

- Individual surveyors are to walk 30 to 50 feet between each other depending on vegetation density and burn patterns.
- Non-burned areas between burned areas should be included in the survey. Do not only survey burned areas within the pre-determined survey areas.
- When ever possible, ecological sites should be confirmed or designated.
- Individual species found shall be GPS'ed.
- Each species found within the survey shall be ranked by degree of burn and age class.
- Ranking for degree of burn shall consist of three categories. These are:
 - UN = Unburned
 - No burn evident on flesh or spines
 - MO = Moderately burned
 - <1/4 of flesh and/or spines burned (yellowed)
 - SV = Severely burned
 - 1/2 or greater of flesh burned (yellowed). Little to no spines on individual species.
- Age class categories shall be:
 - S = Seedling

- <1 inch in height and width.
- Y = Young
 - 1–3 inches in height and width.
- M = Mature
 - >3 inches in height and width.
- D = Decadent
 - Dead
- When a cactus is found, a 10 foot diameter around the individual shall be surveyed for seedlings. Surveyors shall break until area is cleared, then move on.
- Photos should be taken when possible.

Three separate areas were surveyed on the Santa Margarita Ranch in July, 2009. Each area was pre-determined based on slope, soil/ecological type and burned area. Very few areas existed inside the Elkhorn Fire boundary that fit Pima Pineapple Cactus habitat due to the majority of the burned areas was on the Baboquivari Mountains. Survey areas and their summaries are as follows:

Lower Thomas Pasture Survey:

51 acres in the Lower Thomas Pasture was surveyed on July 1, 2009 (Figure 2). Burned areas fell within a Loamy Upland ecological site on State Land. Slope of the survey area ranged from 5% to 20%. This site was burned mildly and in a mosaic type pattern. No Pima Pineapple Cactus was found on this site.

Ripply Pasture Survey:

43 acres in the Ripply Pasture was surveyed on July 1, 2009 (Figure 2). The survey area fell within a Loamy Upland and Sandy Loam Upland ecological site also on State Land. Slope of this site range between 2% and 10%. The survey area showed a complete burn, severely in some areas. There was also no Pima Pineapple Cactus found on this site.

Number 3 Pasture Survey:

51 acres in the No. 3 Pasture was surveyed on July 13, 2009 (Figure 2). The survey area fell within a Sandy Loam Upland and a Loamy Upland ecological site on private and State Land. Slope of this site range between 2% and 10%. This survey was on part of a back fire, and was mildly burned in a mosaic pattern. No Pima Pineapple Cactus was found on this site.

Although no individual cactus species were located within the survey areas, it is important to note that there was one cactus found in the Fire Base Camp that was located along the Elkhorn road. This cactus was protected by T-post and flagged to avoid inadvertent trampling during the period of time the camp was there. Flagging and post were removed when the camp disbanded to avoid increased attention to the site.



Attached are maps of the Elkhorn fire with, individual sites surveyed with Fire Management Units and ownership of burned areas.

Respectfully submitted to the Altar Valley Conservation Alliance by,

Katie E. Cline

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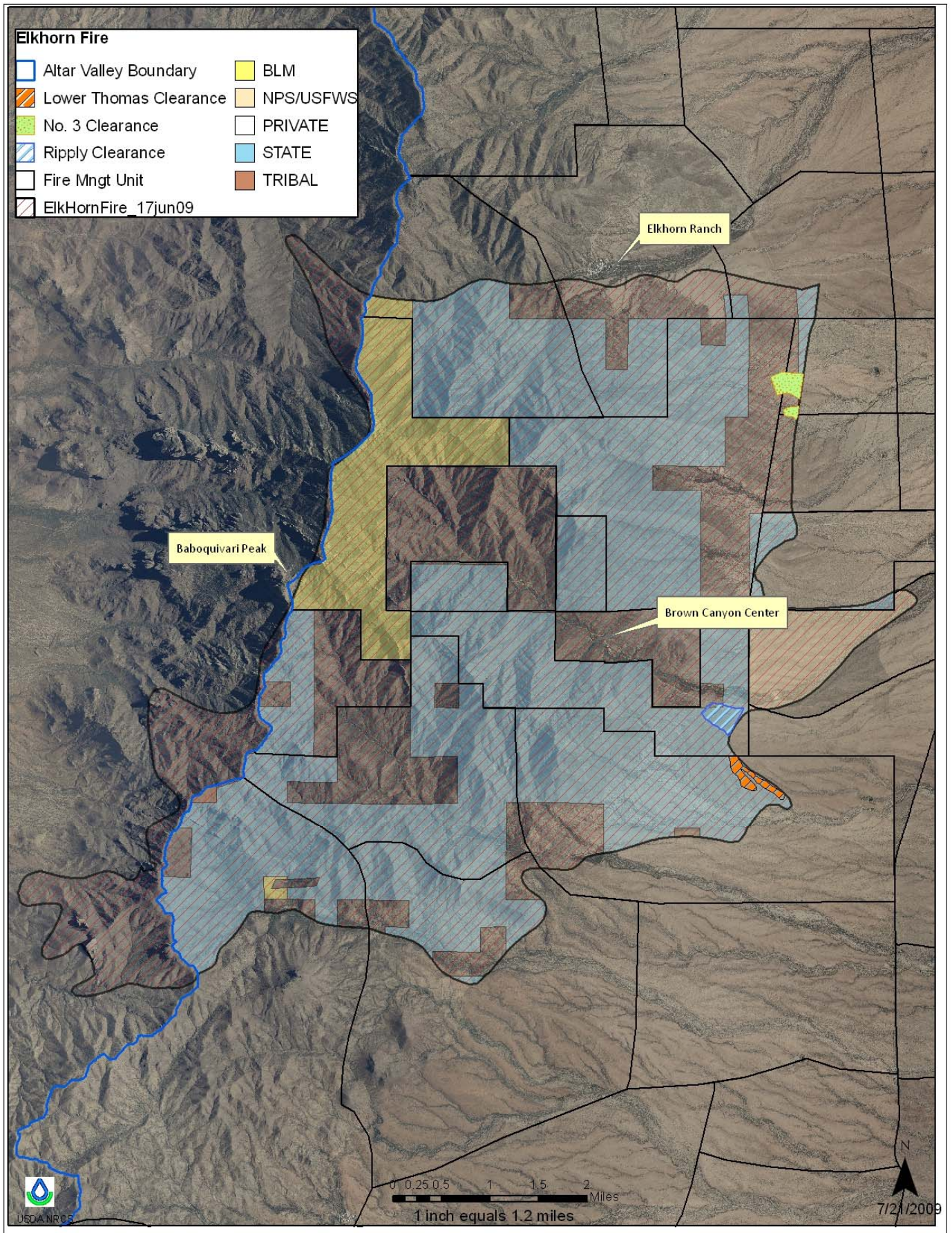


Figure 1. Elkhorn Fire boundary with land ownership and survey areas.

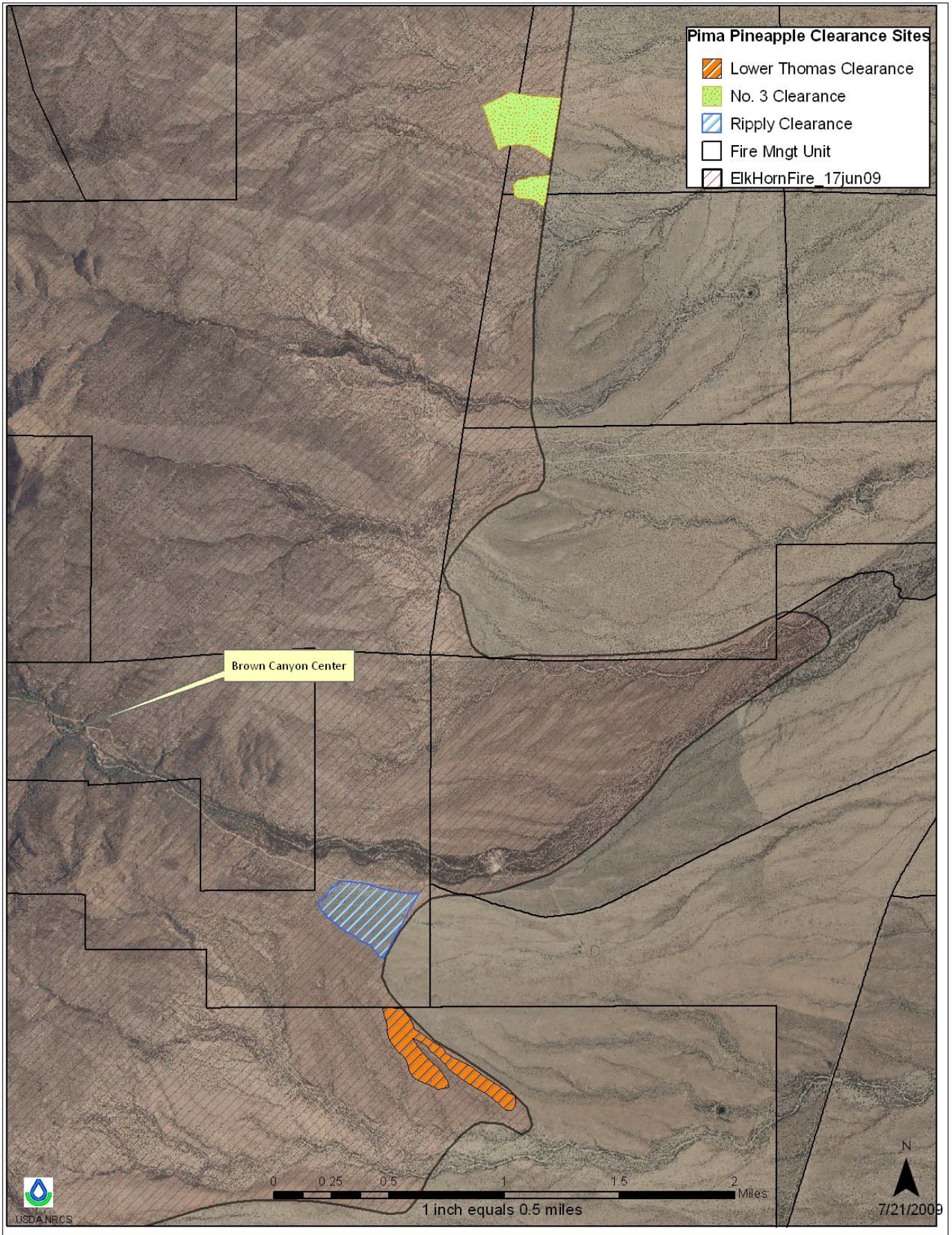


Figure 2. Pima Pineapple Cactus survey areas.