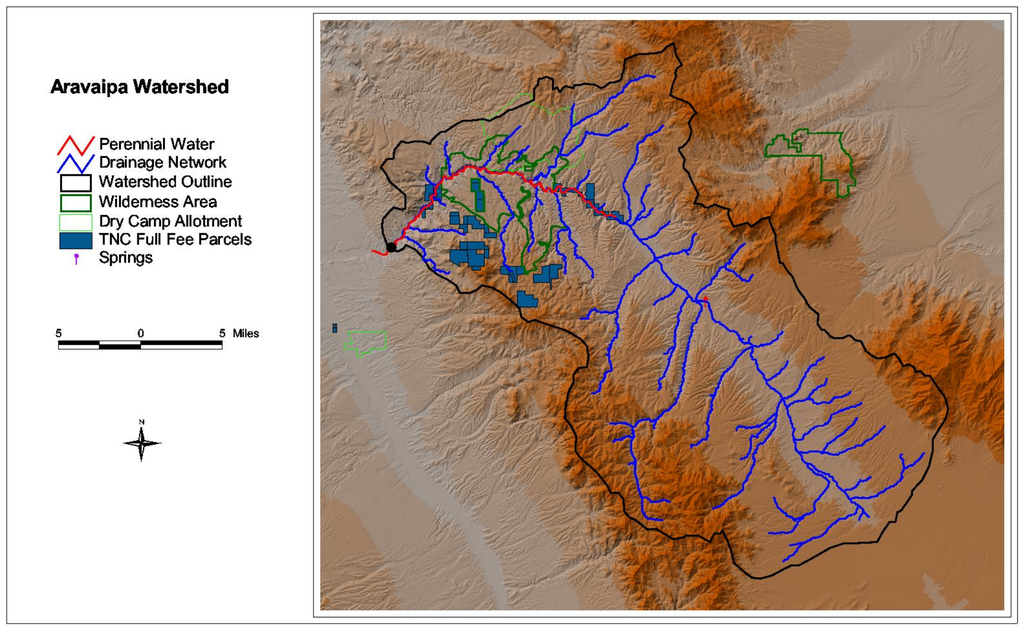
## ARAVAIPA WATERSHED

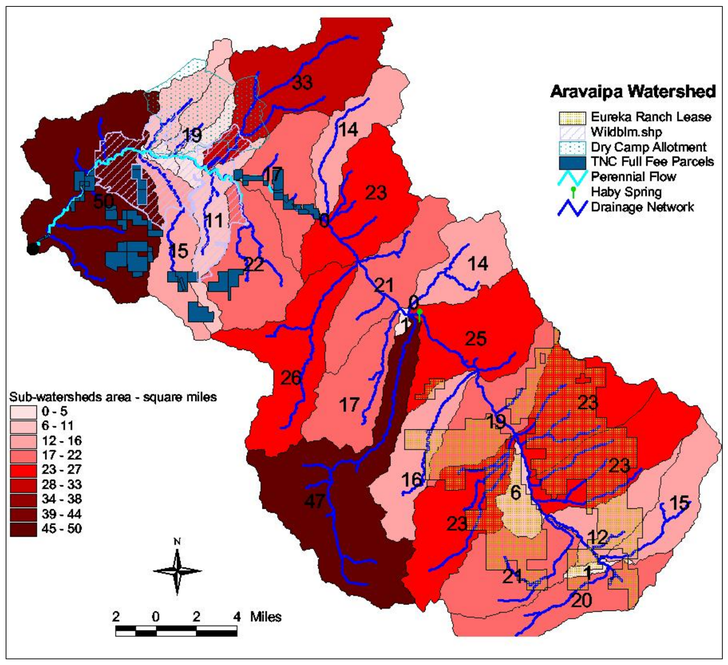


The Aravaipa watershed is 533 sq mi upstream from USGS gage. Watershed area above Aravaipa Springs is about 365 sq mi. Watershed area above Haby Spring is about 210 sq mi.

Perennial flow occurs in about 22 miles of stream (incl 1.3 miles of Turkey Creek). Ephemeral flow occurs in about 34 miles of the mainsteam.

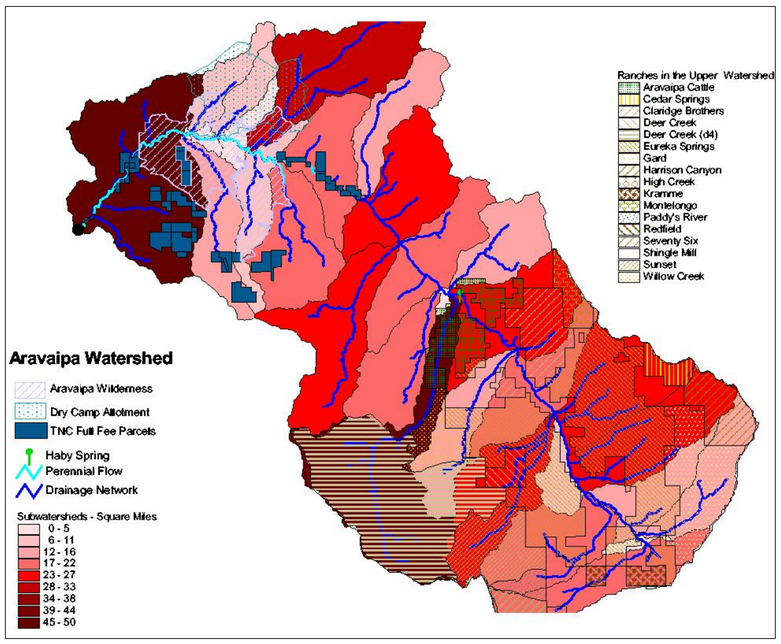
Elevations on the valley floor range from 4,300 feet at the southeastern end to 3,100 feet at the entrance to Aravaipa Canon. The mountains have elevations up to 7,500 feet.

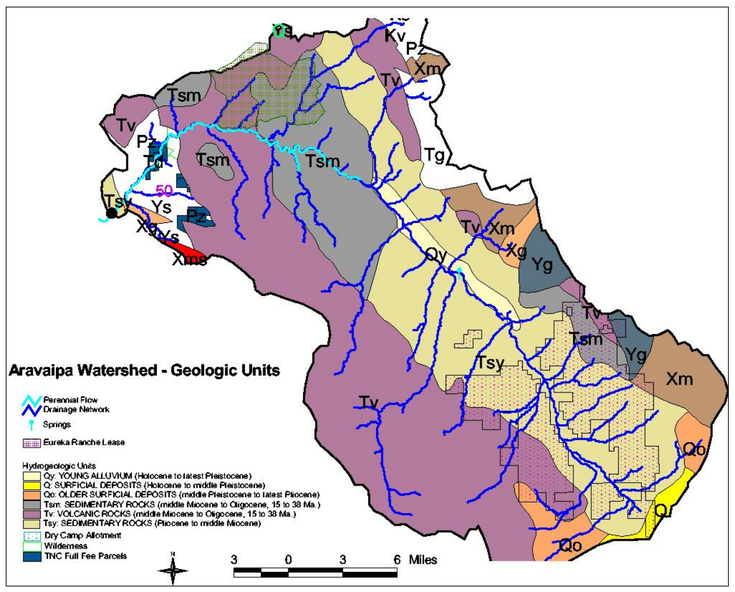
Gradients along Aravaipa Creek range from less than 0.3% slope near its source to 2.5% slope in short reaches of Aravaipa Canyon.




Rattlesnake creek, with 47 square miles of drainage area, is the largest sub-watershed. Rattlesnake joins Aravaipa Creek in the near vicinity of Haby Spring. Deer Creek, with a drainage area of 33 square miles, is the second largest sub-watershed.

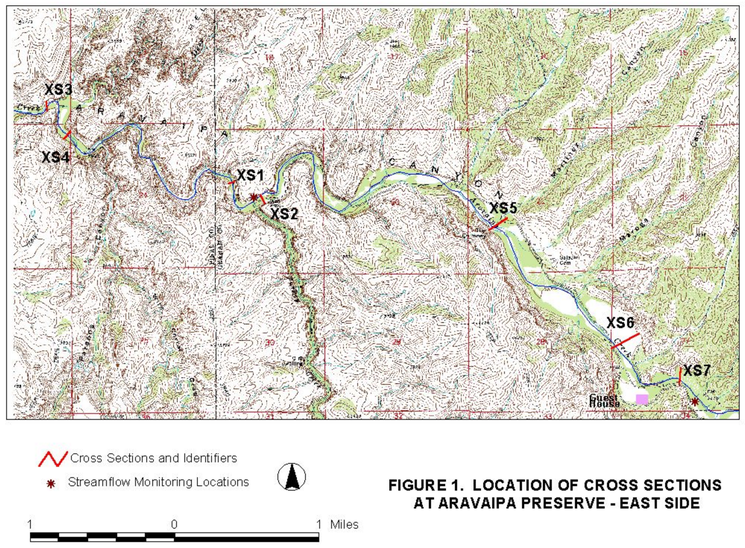
The upper watershed I define as that area above Haby Spring. This area includes 32 of the 97 grazing leases in the watershed for a total of 210 square miles of grazing leases. Of that, Eureka Springs Ranch has 4 allotments, for a total of 67 square miles, plus about 16 square miles of private land. Therefore, Eureka Springs Ranch private land and grazing leases makes up about 39% of the upper watershed.




Hydrogeologic units in the Aravaipa Watershed consist chiefly of volcanic rocks (Tv), well-indurated Hell Hole conglomerate (Tsm), poorly consolidated older alluvium (Tsy), and unconsolidated sands and gravels of the younger alluvium (Qy). The older alluvium contains appreciable amounts of fine- grained materials, including fine sand, silt, and clay, that is readily mobilized during precipitation events, especially in the absence of vegetation due to heavy grazing.

## ARAVAIPA CHANNEL CHANGE FROM 1994 TO 2002



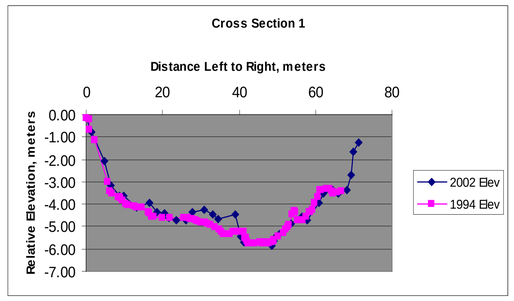
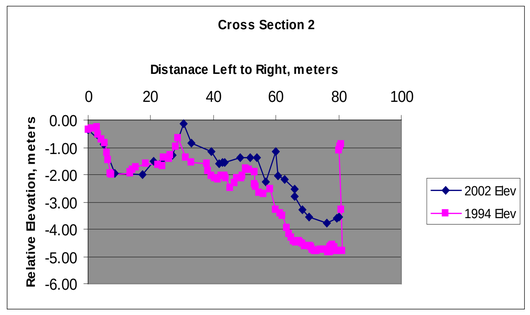
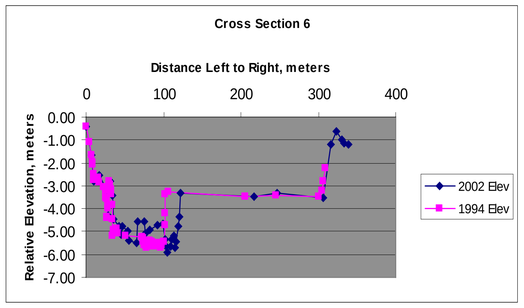
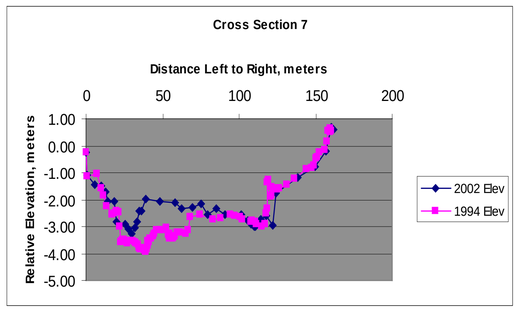


FIGURE 1. LOCATION OF CROSS SECTIONS AT ARAVAIPA PRESERVE - EAST SIDE