

## Welch Creek stream survey



Welch Creek is a tributary to Alameda Creek in the northern portion of Sunol Regional Wilderness. A reproducing population of native rainbow trout was documented in lower Welch Creek in 1999. Alameda Creek Alliance volunteers surveyed the lower end of Welch Creek in December 2003 to assess potential fish passage barriers and trout habitat. The survey covered the portion of the creek from its confluence with Alameda Creek 4/10 of a mile upstream on Welch Creek Road, where there is an impassable steep rock falls.

Lower Welch Creek has a healthy riparian corridor composed of live oak, sycamore, bay laurel, alder, buckeye, willow, and elderberry. There are several very large downed trees in the creek channel which provide potential cover for fish and stabilize the streambanks. No fish were observed on December 13. The lower 2/10 of a mile of creek had many areas of suitable spawning gravels for trout. There was no surface flow at the confluence, but there was about ½ cfs about 1/10 of a mile upstream and about 1 cfs at the rock falls 4/10 of a mile upstream. There were several pools in the survey reach up to 1.5 feet deep, even at only 1 cfs flow.

There was evidence of cattle throughout the lower 2/10 of a mile of the creek – numerous cow patties in the creek and 2 eroded cattle trails into the creek. Cattle regularly congregate on the east bank of Alameda Creek and in the creekbed just upstream of Welch Creek and the road crossing bridge. This area of Alameda Creek is devoid of riparian vegetation.

### **Mile marker 0.10**

Downed tree and debris jam in the creek channel. About a 4 foot grade change above and below debris jam, but not thought to be a fish passage barrier.

### **Mile marker 0.12**



**Ranch road crossing**

Dirt ranch road crossing with two culverts. One culvert is 5 feet in diameter, 20 feet long; the other 3 feet in diameter, 23 feet long. The culverts are essentially at grade and are not thought to be passage barriers.



**Downstream of ranch road crossing**



**Upstream of ranch road crossing**

**Mile marker 0.24**

Side culvert draining Welch Creek Road ditch enters creek.

**Mile marker 0.25**

Natural rock falls, may be a fish passage barrier.



**First rock falls**

### **Mile marker 0.38**

Large 45 degree bend culvert under Welch Creek Road crossing, 9 feet in diameter. The estimated rise is 8 feet and the length is about 75'. Likely a fish passage barrier.



**Downstream end of first Welch Creek road crossing culvert**

### **Mile marker 0.40**

Natural rock falls, definitely an impassable fish passage barrier.