

# Mines Road Barrier on the Mocho

Maryann Brent and Ralph Moir

10/9/2005

Another possible barrier to fish migration on the Mocho is located adjacent to Mines Road just south of Livermore, 1.7 miles from Tesla Road traveling south on Mines R. The photos below show the barrier and the position the photos were taken in is shown in the figure.



Photo #1. Looking down river, gravel is level with the concrete ford roadway. The Mocho is dry (10/9/2005) above the road and there is a 16½-inch drop to the water flowing in from the left, where the Zone 7-South Bay Aqueduct supplies water to recharge Livermore's underground aquifer.

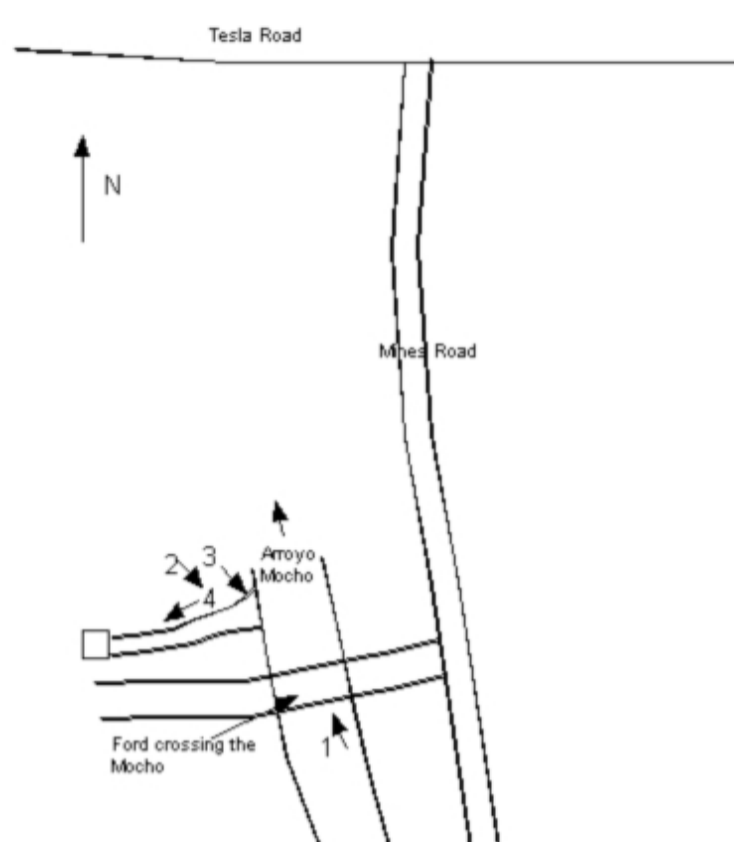


Figure showing the location and direction from which the photos were taken. 1.7 miles from Tesla Road.



Photo #2. A level concrete ford is shown to the left and above. There are ten or so corrugated ~3-foot diameter pipes embedded in the concrete roadway. One can just barely see the tops of these pipes. The pipes are completely full of gravel.



Photo #3. When the Mocho is flowing, it would pass over the ford in a very thin flow and drop to the stream below. In this photo the drop is 16½-inches. If the gravel were removed and kept removed from the upstream area above the pipes then there might not be a barrier to fish passage. Alternatively, the ford could be redesigned so that the flow over it allowed fish to pass upstream. The ford would have to be V shaped rather than flat.