

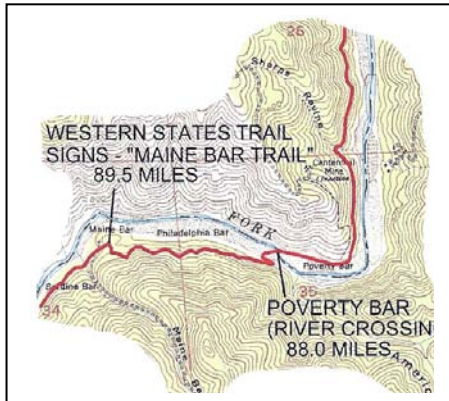
River Crossing – Western States Trail at Poverty Bar

Middle Fork of the American River, Auburn State Recreation Area

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Introduction

The Western States Trail crosses the Middle Fork of the American River at Poverty Bar which is approximately Milepost 88 of the Tevis Cup. During the ride, this is a night-time crossing with glow-sticks along a rope stretched across the river. Many equestrians are interested in practicing the crossing with their horses *prior* to the Tevis Cup. The purpose of these photographs is to explain the fluvial geomorphology of the river crossing.



Map of the River Crossing at Poverty Bar, Tevis Milepost 88

Fluvial Geomorphology of the River Crossing

(the geologic reason why it located at this particular place)

The river crossing is generally considered difficult for *most* horses during floodwater flow in the winter and spring months, but experienced horses can cross during the summer and autumn months. Much depends on the relative volume of hydraulic flow from snowmelt and intense rainfall. The Middle Fork of the American River is a regulated river, and its flow is controlled by Oxbow Dam upstream. The utility is Placer County Water Agency. During the Tevis Cup, water flows are temporarily lowered at Oxbow Dam by PCWA for one day, so there is brief low-volume of hydraulic flow for horses to cross the river, but just enough water to sustain fish.

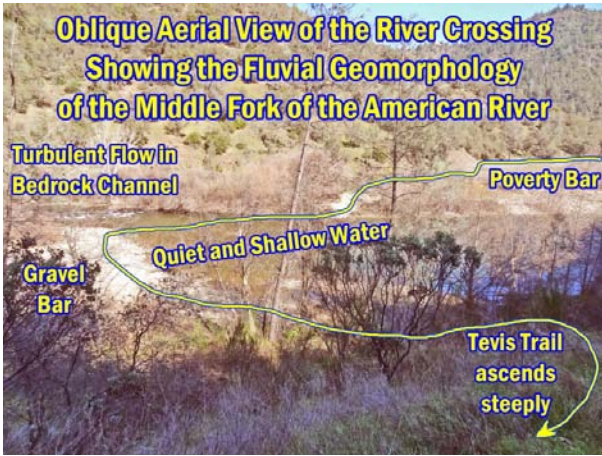
These annotated photographs are meant to assist first-time riders with visual information about what to expect during normal river flow. These photos were taken on February 24, 2012 during drought conditions, so the Middle Fork of the American River was at record low-flow for the winter.

Shown below is a vertical aerial photograph taken during higher "normal" springtime flows of the Middle Fork. Most of the fluvial channel is not evident because the depth of water at the crossing is perhaps about four feet at the time of the aerial photograph. However, summer flow during the Tevis Cup will be much lower, as shown in the field photographs on the next page. The purpose of the aerial photograph is to show riders that the river crossing is not "straight-across", but instead, is "diagonal-across." There will be a stretched rope with glow-sticks to guide equestrians across the river during the night-time.

Fluvial Geomorphology of the Crossing

Middle Fork of the American River





The river crossing was adroitly located by Tevis Cup founder Wendell T. Robie at the boundary between a shallow pool that is floored in alluvium (cobbles and gravel), and a bedrock channel with fast turbulent flow. Do not ride across the center of the pool because the water will be the deepest there. Instead, ride diagonally across at the **western edge of the pool**, just upstream from the turbulent flow in the bedrock channel. This is where the water depth will be minimal because the alluvium is stacked-up against the unyielding bedrock channel.

