Historical Distribution and Current Status of Steelhead/Rainbow Trout *(Oncorhynchus mykiss)* in Streams of the San Francisco Estuary, California

Robert A. Leidy, Environmental Protection Agency, San Francisco, CA
Gordon S. Becker, Center for Ecosystem Management and Restoration, Oakland, CA
Brett N. Harvey, John Muir Institute of the Environment, University of California, Davis, CA

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Center for Ecosystem Management and Restoration

SONOMA COUNTY
Petaluma River Watershed
The Petaluma River watershed lies within portions of Marin and Sonoma Counties. The river flows in a northwesterly to southeasterly direction into San Pablo Bay.

Petaluma River
In a 1962 report, Skinner indicated that the Petaluma River was an historical migration route and habitat for steelhead (Skinner 1962). At that time, the creek was said to be “lightly used” as steelhead habitat (Skinner 1962).
In July 1968, DFG surveyed portions of the Petaluma River accessible by automobile from the upstream limit of tidal influence to the headwaters. No O. mykiss were observed (Thomson and Michaels 1968d).
Leidy electrofished upstream from the Corona Road crossing in July 1993. No salmonids were found (Leidy 2002).

San Antonio Creek
San Antonio Creek is a tributary of Petaluma River and drains an area of approximately 12 square miles. The channel is the border between Sonoma and Marin Counties.
In a 1962 report, Skinner indicated that San Antonio Creek was an historical migration route for steelhead (Skinner 1962).
In July 1968, DFG visually surveyed San Antonio Creek from the San Antonio Slough upstream to Chileno Valley Road. Fishery value was deemed poor due to intermittent summer flows, scarce spawning gravel and suspected dairy effluent. No O. mykiss were observed (Michaels and Thomson 1968).
In September 1981, Leidy electrofished three sites on San Antonio Creek between Highway 101 and Chileno Valley Road. No O. mykiss were found (Leidy 1984).

Adobe Creek (Casa Grande Creek)
Adobe Creek originates on the southwest face of Sonoma Mountain, flowing south and west to its confluence with the Petaluma River. A 1968 DFG visual survey of Adobe Creek found juvenile O. mykiss (50-150 mm) at an estimated density of 150 per 30 meters of stream. This survey also found two ten-foot diversion dams that were complete barriers to fish migration. Several impoundments were noted on tributary streams as well (Thomson and Michaels 1968a).

In 1987, students of Casa Grande High School rescued approximately 2,000 steelhead planted earlier that year from isolated pools in Adobe Creek (Furrer 2003).

Juvenile O. mykiss were rescued from Adobe Creek in June 1993 (Emig 1993). Beginning in 1993, the students of Casa Grande High School operated a hatchery that supplemented naturally occurring O. mykiss populations with steelhead derived from
Feather River stocks (Furrer 2003).
In November 1997, Leidy electrofished Adobe Creek approximately 100 meters upstream from the footbridge in Rancho Adobe
State Park and caught 17 O. mykiss (74-198 mm FL) (Leidy 2002).

Lynch Creek
Lynch Creek drains the west face of Sonoma Mountain, joining the Petaluma River in the city of Petaluma. In July 1968, DFG visually surveyed Lynch Creek by car with frequent stops for closer inspection. Although no fish were seen, the survey report cites
residents' reports of a small run of steelhead in the stream. The surveyors recommended that the stream be managed as a steelhead spawning and nursery area (Thomson and Michaels 1968c). Staff from DFG reports a sighting of an adult O. mykiss in Lynch Creek in summer 1998 (W. Cox pers. comm.). In May 2000 DFG noted 3 YOY during an informal survey of the creek (W. Cox pers. comm.).

Washington Creek
Washington Creek originates in the lower foothills north of the city of Petaluma and runs a short distance to the Petaluma River.
In July 1968, DFG visually surveyed Washington Creek from the mouth up to a four-foot fall located approximately 200 feet upstream from Adobe Road. No fish were observed, and the channel was largely dry (Michaels and Thomson 1969). Staff from DFG reports that Washington Creek does not support an O. mykiss population currently (W. Cox pers. comm.).

Willow Brook
In July 1968, DFG visually surveyed Willow Brook Creek from the mouth to the headwaters. The channel was primarily dry with warm, intermittent pools that appeared to be drying completely. No O. mykiss were observed. Because of poor summer conditions, DFG considered Willow Brook to have no fishery value (Thomson and Michaels 1968e). Staff from DFG reports that
Willow Brook may support an O. mykiss population in some years (W. Cox pers. comm.).

Lichau Creek
Lichau Creek flows west out of the Sonoma Mountains, then south past the town of Penngrove. In July 1968, DFG visually surveyed Lichau Creek from the mouth to the headwaters. Approximately ten juvenile O. mykiss (50-180 mm) were found in two small headwater pools (Thomson and Michaels 1968b). Although no barriers were observed in the main channel, dams were observed in some tributary streams. Staff from DFG reports that Lichau Creek may support an O. mykiss population in some years (W. Cox pers. comm.).

Assessment: The Petaluma River watershed historically supported steelhead runs, although the habitat available in the system is of substantially lesser importance than the Sonoma Creek system to the east. The river has been referred to by DFG staff as **"Petaluma Dead-End Slough"** for the low habitat value of tributaries to the watershed upstream of the tidal portion (W. Cox pers. comm.).