

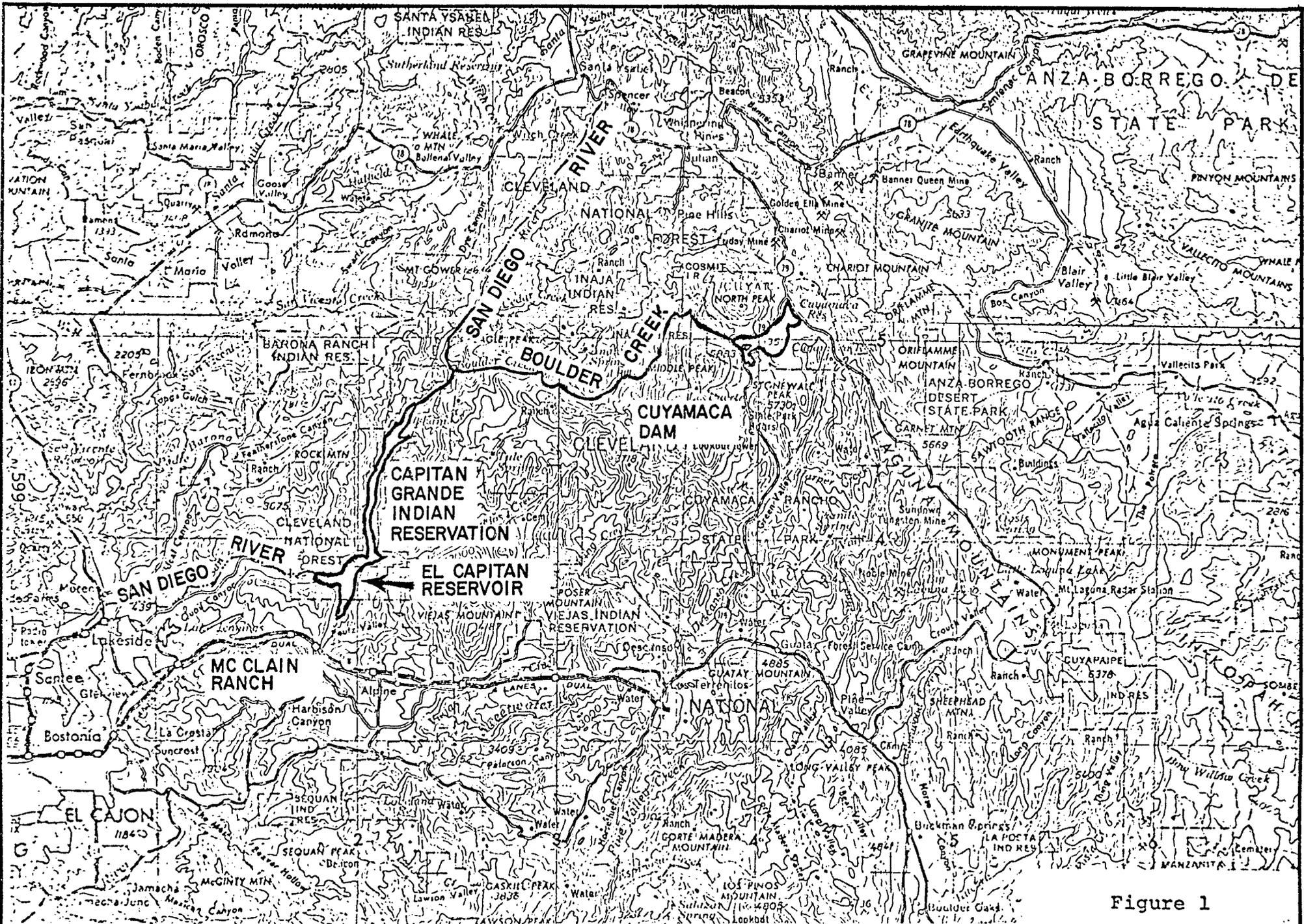
CASE STUDY REPORT #84
EL CAPITAN RESERVOIR
SAN DIEGO RIVER

I. Project Description

El Capitan Reservoir was built by impounding the San Diego River in 1934 (Figure 1). The 217-foot high dam was constructed by the City of San Diego as a municipal water supply creating a reservoir with a surface area of about 1,560 acres and storage capacity of 112,807 acres. Water is diverted from the reservoir by pipeline to San Diego. Rainfall in the area is about 12-15 inches. The reservoir captures surface runoff through intermittent stream channels leading into the reservoir.

II. Pre-Project Conditions

The San Diego River and Boulder Creek are the major intermittent stream tributaries to El Capitan Reservoir. Flow in the San Diego River is generally a response to annual rainfall and drying of the channel occurs during summer droughts. Boulder Creek is impounded upstream of El Capitan by Cuyamaca Reservoir which was initially constructed in 1884 and enlarged in 1895. Runoff into this reservoir is recorded to have an annual mean of 6.74 cfs with zero flows occurring in late summer and early autumn. It is assumed that before El Capitan, water was released from Cuyamaca downstream to some points of diversion. Historically the stream was probably intermittent



Source: U. S. Geological Survey, 1:250,000, San Diego, California, 1970.

Figure 1
LOCATION MAP
EL CAPITAN RESERVOIR

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throughout its length except for the lower reach below Santee. No record was discovered in the files searched reporting fish and wildlife resources in the San Diego River.

III. Project Development

No record was discovered that pertained to relationships between El Capitan Reservoir and fish and wildlife resources in the downstream area.

IV. Post-Project

No record was obtained of flow releases from Cuyamaca to El Capitan. There is no historical flow below El Capitan. All water diverted from the reservoir flows by pipeline to San Diego or the Helix Irrigation District. Seepage from the reservoir is pooled immediately below the reservoir and then pumped back into the reservoir. Insofar as is known, there has been no water spillage or releases from El Capitan since its construction. The stream channel is dry, but shows some evidence of water conveyance from local runoff during storms. Riparian vegetation is well developed and grass is abundant in the stream channel.

V. Conclusion

Fish and wildlife indigenous to the San Diego River were not resource considerations during the development of the project.

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