

EXPLANATION

- ALLUVIUM
- COLLUVIUM AND WEATHERED CRYSTALLINE ROCKS—Generally covered by a thin layer of alluvium
- CRYSTALLINE ROCKS—Generally covered by a thin layer of alluvium and colluvium near stream channels
- CONTACT
- BOUNDARY OF GROUND-WATER BASIN
- 25— LINE OF EQUAL THICKNESS OF ALLUVIUM—Interval 25 feet. Dashed where approximate. Queried where uncertain
- 1H1 80 WELL—Upper number is well number. Lower number is thickness of alluvium in feet
- 15G3 60 U.S. GEOLOGICAL SURVEY OBSERVATION WELL—Upper number is well number. Lower number is thickness of alluvium in feet
- A—A' LINE OF GEOLOGIC SECTION
- CONTACT BETWEEN COLLUVIUM AND WEATHERED CRYSTALLINE ROCKS—Geologic cross section only

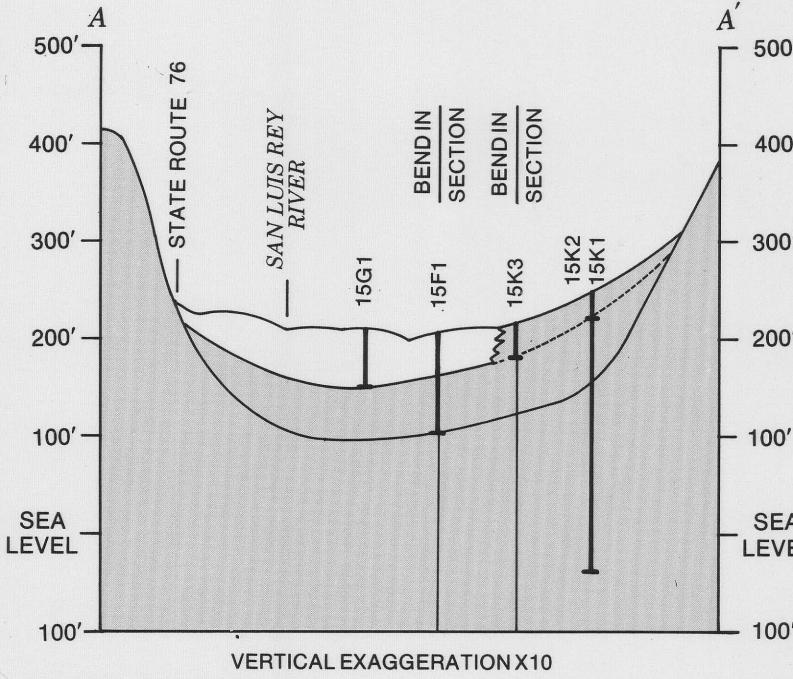
THICKNESS OF ALLUVIAL FILL

Alluvial fill in the Bonsall area is primarily a well-sorted fine sand with small amounts of silt and clay. Maximum thickness of alluvial fill exceeds 75 feet in the eastern part of the alluvial aquifer. Alluvial deposits thin to slightly more than 50 feet in the western part. The alluvial aquifer contains approximately 113,000 acre-feet of fill. If an average specific yield of 0.16 (Moreland, 1974) is applied, maximum ground-water storage is estimated at 18,000 acre-feet. In some areas, the alluvial aquifer is surrounded and underlain by colluvium and weathered crystalline rock (section A-A'). This material is water bearing and contributes additional ground-water storage capacity to the system. The unweathered crystalline rocks yield only small quantities of water from cracks and fissures; for the purposes of this report they are considered to be non-water bearing.

REFERENCES

Moreland, J. A., 1974, Hydrologic- and salt-balance investigations utilizing digital models, lower San Luis Rey River area, San Diego County, California: U.S. Geological Survey Water-Resources Investigations 27-74, 66 p.

GEOLOGIC SECTION



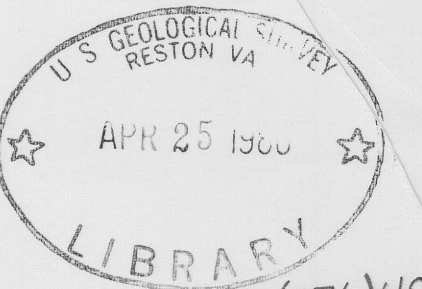
Geology modified from Moyle, W.R., Jr., 1971, Water wells in the San Luis Rey River valley area, San Diego County, California: California Department of Water Resources Bulletin 91-18, 347 p.

For additional information write to:
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THICKNESS OF ALLUVIAL FILL
MAPS OF THE BONSAI AREA OF THE SAN LUIS REY RIVER VALLEY, SAN DIEGO COUNTY, CALIFORNIA
SHOWING GEOLOGY, HYDROLOGY, AND GROUND-WATER QUALITY
BY
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