A map of the water table in the Solomon River Valley from Waconda Lake to Solomon has been prepared to present survey (1968) data and to show the study area. The study was made in cooperation with the U.S. Bureau of Reclamation to obtain information for use in water-resource study of the Solomon River basin.

The Solomon River, which originates in western Kansas and flows southeastward from Waconda Lake to the confluence with the Smokey Hill River, traverses a granular alluvial plain. The interlaced stream system in the valley is incised into consolidated rocks that are composed mostly of shale and sandstone. The unconsolidated deposits in the valley underlie the flood plain and the terrace, which commonly occurs along the northern side. The alluvial deposits generally consist of gravel and sand near the surface and clay and silt underlying throughout. Thicknesses of the deposits may be as much as 70 feet.

Groundwater in the unconsolidated deposits is the principal source of supply for domestic, stock, and irrigation use. Water-table contours, as shown on the map, indicate that ground water moves from the alluvial deposits to the stream valleys. Wells tapping the water table are deepest in the western part of the study area, where much of the stream flow is present. Water-level measurements for this study were made during the spring of 1980, prior to the irrigation season. U.S. Geological Survey topographic maps were used to determine approximate elevations where the water table is intersected by perennial stream.

REFERENCES

CONVERSION TABLE

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MAP OF WATER TABLE IN SOLMON RIVER VALLEY, WACONDA LAKE TO SOLOMON, NORTH-CENTRAL KANSAS, MAY 1980

By
Thomas B. Reed
1981