

**EXPLANATION**

- Bedrock outcrop
- Depth to water table, in feet below land surface
  - Less than 20
  - 20 to 40
  - 40 to 60
  - 60 to 80
- Limit of well-defined, 20-foot-interval water-table contours

**Depth to the Water Table**

The map of the depth to the water table (fig. 9) was calculated by using the geographic information system to subtract the water-table altitude coverage from the unsmoothed land-surface altitude coverage. The resulting coverage of the depth to the water table was plotted only for the area having well-defined 20-foot-interval water-table contours. Beyond this area, the aquifers may be thin, discontinuous, or transient, and the water table may be in the bedrock during much of the year. If shallow aquifers are present in this area, the water table generally will be near the top of the bedrock, and the depth to water will be similar to the thickness of the unconsolidated sediments (fig. 3).

Depth to the water table in the study area ranges from zero to about 60 feet. Depth to water generally is less than 20 feet along the low-lying parts of the valleys of the South Platte River, Saint Vrain Creek, and the Big Thompson River. Near the margins of these valleys, depth to water commonly is greater than 20 feet. The greatest depths to water, 40 to 80 feet, are along the paleovalley in Beebe Draw and along parts of the Box Elder Creek valley.

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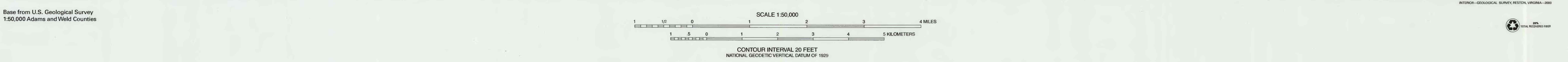
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**CONVERSION FACTORS AND VERTICAL DATUM**

Multiply	By	To obtain
foot	0.3048	meter
mile	1.609	kilometer
square mile	2.59	square kilometer

Sea level: In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geoid datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "Mean Sea Level."

FIGURE 9—Depth to the water table in the shallow aquifers.



**GEOHYDROLOGY OF THE SHALLOW AQUIFERS IN THE FORT LUPTON-GILCREST AREA, COLORADO**

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Base from U.S. Geological Survey  
 1:50,000 Adams and Weld Counties