

# Resources: Water

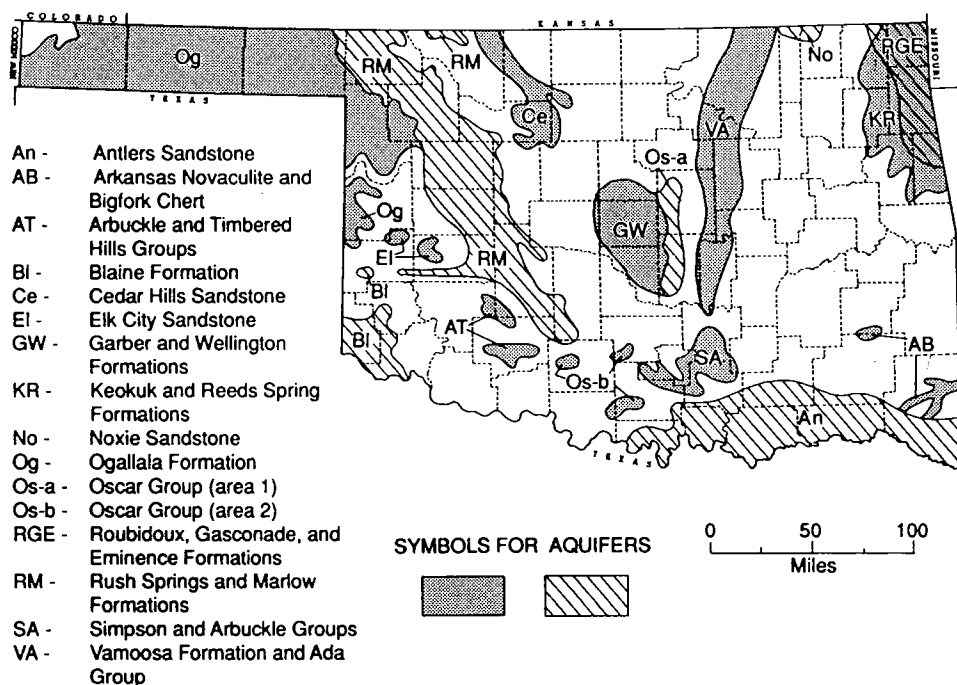


## 43. Is there ground water under my property?

Ground water exists almost everywhere, but the water table may be deep, the water may be salty, and the aquifer may have a low yield.

The occurrence of ground water depends on the local geology: the type of rock or soil, their porosity and permeability, and whether that rock or soil contains good-quality ground water. About half of Oklahoma is underlain by major ground-water aquifers, such as the Ogallala, Garber-Wellington, and Alluvium (Fig. 13), in which a well should yield at least 25 gallons per minute of good water. In the rest of the State, where the rock or soil is slightly or moderately weathered, fractured, or porous, the potential yield is 2–10 gallons per minute of acceptable water.

Because ground water conditions vary so much from site to site, you should ask your neighbors about their experience concerning ground-water depth, quality, and yield. Other sources of information are geologists, hydrologists, and water-well drillers with experience in your area.



**Figure 13** (question 43). Map showing the principal bedrock aquifers in Oklahoma. Aquifers in recent sand and gravel deposits (alluvium) are not shown on this map; these aquifers follow the courses of the major rivers in Oklahoma. (Modified from Johnson, 1983.)

## 44. How deep will I have to drill to find water on my property?

It depends on the local geology and hydrology, but nearby water wells may be a guide.

The depth to ground water is based on local geology (see question 43) and the amount of precipitation in an area. Rainwater (and snowmelt) will penetrate the pores and fractures in the local bedrock and accumulate at a certain level (or depth); that level is known as the ground-water table. If a well is drilled below the water table and if there is sufficient water and permeability to allow water to flow through the pores and fractures to the wellbore, water can be pumped to the surface. Neighbors and experienced specialists (such as a geologist, hydrologist, or well-driller) may be helpful for predicting how deep the ground-water table on your property is.