

Queen City Aquifer

The Queen City aquifer extends across Texas from the Frio River in South Texas northeastward into Louisiana. The aquifer provides water for domestic and livestock purposes throughout most of its extent, significant amounts of water for municipal and industrial supplies in Northeast Texas, and water for irrigation in Wilson County. Yields of individual wells are commonly low, but a few exceed 400 gal/min.

Sand, loosely cemented sandstone, and interbedded clay units of the Queen City Formation of the Tertiary Claiborne Group make up the aquifer. These beds fill the East Texas structural basin adjacent to the Sabine Uplift and then dip gently to the south and southeast toward the Gulf Coast. Although total aquifer thickness is usually less than 500 feet, it can approach 700 feet in some areas of Northeast Texas.

Water of excellent quality is generally found within the outcrop and for a few miles downdip, but water quality deteriorates with depth in the downdip direction. In some areas, water of acceptable quality may occur at depths of approximately 2,000 feet. The water may be acidic in much of Northeast Texas and relatively high in iron concentrations in some locations.

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