Table 1. Summary of the lithologic and hydrologic properties of the hydrogeologic units in Webb County, Texas

[Lithologic and hydrologic properties modified from Lonsdale and Day, 1937; Winslow and Kister, 1956; Klemt and others, 1976; University of Texas, Bureau of Economic Geology, 1976a,b. Color shading to show aquifer. ft, feet; AQ, aquifer; <, less than; gal/min, gallons per minute; CU, confining unit; >, greater than]

Epoch	Period	Hydrogeologic unit	Group, formation, or member	Hydrologic function	Maximum thickness (ft)	Lithology	Water quality and well yields
Recent (Holocene)	Quaternary	River alluvium	Alluvial deposits	AQ where saturated	50	Stream-deposited sand, gravel, and silt	Yields variable amounts of water along streams; some suitable for domestic use
Recent (Holocene)	Quaternary	None	Windblown sand sheet deposits	Not saturated	Unknown	Sand	Not known to yield water; low to moderate water-holding capacity
Pleistocene	Quaternary	None	Fluviatile terrace deposits	Not saturated	Unknown	Gravel, sand, silt, and clay	Not known to yield water
Pleistocene or Pliocene	Quaternary or Tertiary	None	Uvalde Gravel	Not saturated	25	Gravel, conglomerate, sand, and caliche	Not known to yield water
Pliocene	Tertiary	Gulf Coast aquifer	Goliad Sand	AQ	100	Reddish sand, caliche, and conglomerate, with some clay	Yields variable amounts of water at shallow depths in southeastern Webb County; quality variable, usually suitable for domestic use
Miocene	Tertiary	Gulf Coast aquifer	Catahoula Tuff, Fant member	AQ	1,200	Pyroclastic rocks; shaley and tuffaceous sandstone; bentonitic clay; sandstone beds as much as 20 ft in thickness	Outcrop area yields small amounts of highly mineralized water (<15 gal/min); in southeastern Webb County, wells 150–400 ft deep yield considerable amounts of water (30–150 gal/min); fresh to slightly saline water suitable for multiple uses
Oligocene	Tertiary	Frio confining unit	Frio Clay	CU	>230	Clay and sandy clay	Not known to yield water
Eocene	Tertiary	Jackson aquifer	Jackson Group	AQ	2,220	Clay, shale, sandy clay, sandstone, ashy sandstone, and volcanic ash; ashy beds contain plant fossils	Minor aquifer; yields variable amounts of slightly to highly saline water used mainly for stock
Eocene	Tertiary	Yegua aquifer	Claiborne Group, Yegua Formation	AQ	1,480	Clay, sandy clay, thin beds of sandstone; secondary gypsum and some limestone concretions	Minor aquifer; yields small amounts (<15 gal/min) of slightly to moderately saline water suitable for stock
Eocene	Tertiary	Laredo aquifer	Claiborne Group, Laredo Formation	AQ	1,510	Sandstone, glauconitic sandstone, glauconitic marl, and clay. Some limestone; fossiliferous	Major aquifer; sandstone of lower part constitutes important part of aquifer, yielding small to large amounts (5–170 gal/min) of fresh to moderately saline water. Flowing wells obtained in low areas of northeastern Webb County; suitable for many uses; might be affected by growth faults in eastern Webb County
Eocene	Tertiary	El Pico confining unit	Claiborne Group, El Pico Clay	CU	1,710	Clay, with interbedded sandstone; claystone and lignite coal lenses common	Yields small amounts of highly mineralized water in the outcrop area
Eocene	Tertiary	Queen City-Bigford aquifer	Claiborne Group, Queen City Sand, Bigford Formation	AQ	2,170	Lower part of El Pico Clay includes Queen City Sand, a massive, interbedded clayey sandstone overlying the Bigford Formation. Bigford Formation is a gypsiferous clay with thin-bedded to massive, clayey sandstone, lignite, and coal	The Queen City-Bigford aquifer is a minor aquifer; the sandstone supplies small to moderate amounts of fresh to very saline water generally used only for stock; might be affected by growth faults in eastern Webb County
Eocene	Tertiary	Reklaw confining unit	Claiborne Group, Reklaw Formation	CU	1,050	Downdip, the Reklaw Formation is a marine shale at base of Bigford Formation that functions as a confining unit	Not known to yield water
Eocene	Tertiary	Carrizo aquifer	Claiborne Group, Carrizo Sand	AQ	1,250	Massive, crossbedded sandstone with small amounts of clay or shale	Major aquifer; most prolific source of fresh ground water in Webb County; generally yields moderate to large amounts (>150 gal/min) of fresh to slightly saline water suitable for all uses; might be affected by growth faults in eastern Webb County
Eocene	Tertiary	Upper Wilcox confining unit	Wilcox Group, Indio Formation	CU	850	Thin sandstone interbedded with carbonaceous clay, shale, and lignite	Yields small amounts of highly mineralized water suitable for stock; might be affected by growth faults in eastern Webb County. Might be hydrologically connected to Carrizo aquifer in some areas