

Hydrogeologic subdivision		Group, formation, or member	Hydrologic function	Thickness (feet)	Lithology	Field identification	Cavern development	Porosity/ permeability type			
Upper Cretaceous	Upper confining unit	Taylor Group	CU	600	Clay; chalky limestone	Gray-brown clay; marly limestone	None	Low porosity/ low permeability			
		Austin Group	CU: rarely AQ	130 – 150	White to light-tan to gray limestone	White, chalky limestone; <i>Pycnodonte aucella</i> <i>Inoceramus subquadratus</i>	None	Low porosity; rare water production from fractures/ low permeability			
		Eagle Ford Group	CU	30 – 50	Brown, flaggy sandy shale and argillaceous limestone	Thin flagstone; petroliferous	None	Primary porosity lost/ low permeability			
		Buda Limestone	CU	40 – 50	Buff, light-gray, dense mudstone	Porcelaneous limestone	Minor surface karst	Low porosity/ low permeability			
		Del Rio Clay	CU	50 – 60	Blue-green to yellow-brown clay	Fossiliferous: <i>Ilymatogyra arictina</i>	None	None/primary upper confining unit			
Lower Cretaceous	Edwards Aquifer	Edwards Group	Person Formation	I	Georgetown Formation	CU	40 – 60	Gray to light-tan, marly limestone	Marker fossil: <i>Waconella wacoensis</i>	None	Low porosity/ low permeability
				II	Cyclic and marine members, undivided (4)	AQ	0 – 70	Mudstone to packstone; <i>miliolid</i> grainstone; chert	Boxwork vugs; light tan, massive, some <i>Toucasia</i> , <i>Caprinid</i> , and <i>Chondrodonta</i>	Many caves; might be associated with earlier karst development	Laterally extensive; both fabric and not fabric/ water-yielding: one of the most porous and permeable; essentially absent in Travis County
				III	Leached and collapsed members, undivided (4)	AQ	30 – 80	Crystalline Limestone; mudstone to wackestone to <i>miliolid</i> grainstone; chert; collapsed breccia	Light-gray, bioturbated iron-stained beds separated by massive limestone beds; <i>Toucasia</i> , <i>Chondrodonta</i>	Extensive lateral development; large rooms	Majority not fabric/ one of the most porous and permeable
				IV	Regional dense member (3)	CU	20 – 30	Light-tan, dense argillaceous mudstone	Wispy iron-oxide stains; <i>Pleuromya knowltoni</i> , <i>Ceratostrongyloides texanum</i>	None; only vertical fracture enlargement	Not fabric/ low permeability; vertical barrier
				V	Grainstone member (2)	AQ	45 – 60	Light-gray, <i>miliolid</i> grainstone; mudstone to wackestone; chert	White crossbedded grainstone; <i>Toucasia</i> , <i>Turritella</i> , and <i>Chondrodonta</i>	Few caves	Not fabric/ recrystallization reduces permeability
				VI	Kirschberg evaporite member (1)	AQ	65 – 75	Light-gray, crystalline limestone; chalky mudstone; chert	Boxwork voids, with neospar and travertine frame: <i>Cladophyllia</i> and <i>Turritella</i>	Probably extensive cave development	Majority fabric/ one of the most porous and permeable
				VII	Dolomitic member (1)	AQ	110 – 150	Mudstone to grainstone; crystalline limestone; chert	Massively bedded, light gray, <i>Toucasia</i> abundant; <i>Dictyoconus wahtutensis</i> , <i>Caprinid</i>	Caves related to structure or bedding planes	Mostly not fabric; some bedding-plane fabric/water-yielding: locally permeable
				VIII	Basal nodular member	Karst AQ: not karst CU	45 – 60	Shaly, fossiliferous nodular limestone; mudstone; <i>miliolid</i> grainstone	Massive, nodular and mottled; <i>Ceratostrongyloides texanum</i> , <i>Dictyoconus walnutensis</i> , and <i>Texigryphaea</i>	Few caves	Fabric/low permeability
			Lower confining unit	Upper member of the Glen Rose Limestone	CU: evaporite beds AQ	350 - 500	Yellowish-tan, thinly bedded limestone and marl	Stair-step topography; alternating limestone and marl	Some surface cave development	Some water production at evaporite beds/ relatively impermeable	

Modified from Small and others.

Figure 4-11. Summary of the Lithographic and Hydrologic Properties of the Hydrologic Subdivisions of the Edwards Aquifer Outcrop (Barton Springs Segment)