

Table 1. Generalized stratigraphy and water-bearing properties of formations underlying Albany and the surrounding areas, Georgia. Modified from Clarke and others, 1984 (Early Eocene and older) and Hicks and Longworth, 1987 (Middle Eocene and younger).

ERA	SYSTEM	SERIES	GULF COAST STAGE	GROUP, FORMATION, AND MEMBER		LITHOLOGY	AQUIFER OR CONFINING ZONE, THIS REPORT	THICKNESS (feet)					
				Northwest Area	Southeast Area								
Cenozoic	Quaternary	Holocene	Wisconsin to Nebraska	Undifferentiated overburden	Undifferentiated overburden	Fine to coarse quartz sand and noncalcareous clay	Surficial aquifer/upper semi-confining unit	20-80					
		Pleistocene											
	Tertiary	Pliocene	Foleyan	Ocala Limestone	Ocala Limestone	Highly fractured sandy limestone and crystallized dolomitic limestone; overlain (where present) by clayey, dense, chalky limestone, clay, and silt; overlain by finely recrystallized chalky, oolitic, or dolomitic limestone	Upper Floridan aquifer	25-270					
			Clovelian										
			Ducklakian										
			Napoleonvillian (restricted)										
			Anahuacian										
		Oligocene	Chickasawhayan (restricted)	Suwannee Limestone	Light gray to white, coarse to extremely fine-grained limestone	0-100							
			Vicksburgian										
			Eocene				Late Eocene	Jacksonian	Ocala Limestone	Ocala Limestone	Highly fractured sandy limestone and crystallized dolomitic limestone; overlain (where present) by clayey, dense, chalky limestone, clay, and silt; overlain by finely recrystallized chalky, oolitic, or dolomitic limestone	Upper Floridan aquifer	25-270
							Middle Eocene	Claibornian	Claiborne Group	Lisbon Formation	Lisbon Formation	Fine sand and marl, dense, earthy fossiliferous; contains thin beds of sandstone and hard, sandy, fossiliferous, glauconitic limestone	Lisbon confining zone
	Tallahatta Formation	Tallahatta Formation		Sand, fine to coarse; gravelly at the base; grades upward into poorly sorted fine to coarse sand interbedded with highly fossiliferous limestone layers	Claiborne aquifer ³	0-270							
	Tallahatta Formation (?) ²												
	Paleocene	Sabinian	Wilcox Group	Bashi Formation	Hatchetigbee Formation	Bashi Formation—Very fine to fine sand, often clayey, silty, and calcareous; massively bedded; contains abundant glauconite and calcareous fossils. In down dip areas, the formation becomes clayey silt and very fine sand. The Bashi Formation is a down dip facies equivalent of the Hatchetigbee Formation ²	Wilcox confining unit—In some areas, sand and limestone layers in the Hatchetigbee Formation, Tusahoma Formation, Nanafalia Formation, and upper Clayton Formation provide ample supplies for domestic use	0-260					
				Tusahoma Formation	Tusahoma Formation	Basal unit consists of glauconitic, medium to coarse sand containing quartz and phosphate pebbles, clay clasts, and shells. Upper unit consists of laminated silts and clays that are commonly carbonaceous and nonfossiliferous ²							
				Baker Hill Formation	Baker Hill Formation	Baker Hill Formation—Koalinitic and bauxitic massively bedded clay, carbonaceous clay, and crossbedded micaceous quartz sand. The Baker Hill Formation is an up dip facies equivalent of the Nanafalia Formation ²							
				Nanafalia Formation	Nanafalia Formation	Nanafalia Formation—Upper part consists of very-fine to coarse, glauconitic, micaceous, fossiliferous sand and clayey sand. Lower part consists of fine to coarse, micaceous quartz sand and carbonaceous clay ⁴							
		Midwayan	Midway Group	Porters Creek Clay	Clayton Formation	Clayton Formation	Dark-gray to black clay, waxy appearing, silty, fissile, fossiliferous, somewhat indurated, interbedded with fine sand. Unit absent over most of the western part of study area ⁴	Clayton aquifer—Over most of the clastic area, forms a single aquifer unit with upper member of the Providence Sand and provides ample supplies of water for domestic use. In the carbonate area, the aquifer consists primarily of limestone and provides ample water for municipal, agricultural, and industrial supply. In the transition area, the aquifer consists of calcareous sand interbedded with thin limestone and clay layers and provides ample supplies of water for domestic use	0-265				
							Clastic area ⁵			Carbonate area ⁵	Transition area ⁵		
Medium to coarse, massive or crossbedded sand containing layers of clay, calcareous sand or sandy limestone, and local shell lenses							Upper unit—Very-fine to medium calcareous, silty sand containing thin beds of limestone and clay			Well-sorted calcareous sand, silt, and clay containing thin layers of clayey fossiliferous limestone			
Lower unit—Calcareous, fine to coarse sand and sandy marl that is locally arkosic, glauconitic, and fossiliferous. Unit may be derived in part from erosion and redeposition of the underlying Providence Sand													
Mesozoic	Cretaceous	Upper Cretaceous (Gulfian)	Navarroan	Providence Sand (upper unnamed sand member)	Providence Sand (upper unnamed sand member)	Fine to coarse silty sand, grades from a thickly bedded sand up dip to a massive marine sand containing calcareous intervals down dip. ⁴ In Albany, Dougherty County, upper part is a dense, clayey, fine sand; middle part is slightly dolomitic coquina grading upward to a siltstone; lower part is sand containing varying amounts of silt. ¹ Unit grades to a silty clay and very clayey sand at the Arrowhead test well in the northwestern part of the study area	Providence aquifer—Over most of the clastic area, the confining zone is absent and the Clayton Formation and upper member of the Providence Sand form a single aquifer unit	0-130					
						Providence Sand (Perote member)	Providence Sand (Perote member)	Silt or very-fine sand, dark gray, highly micaceous, carbonaceous. Unit merges with upper member east of Schley County where it grades into coarse sand	Providence-Ripley confining zone—Where absent, the Providence Sand, Ripley Formation, and upper Cusseta Sand form a single aquifer unit.	0-300			
						Ripley Formation	Ripley Formation	Sand, fine, clayey, micaceous, fossiliferous. Unit grades to clayey coarse sand in the eastern part of the study area	Cusseta aquifer—Forms a single aquifer unit with the Providence Sand and Ripley Formation down dip and eastward	0-150			
			Tayloran	Cusseta Sand	Cusseta Sand	Blufftown Formation	Blufftown Formation	Sand, coarse, containing increasing amounts of thinly bedded carbonaceous clay toward the upper contact. Size and amount of sand decreases down dip where micaceous silt and clay dominate ⁴	Blufftown aquifer	0-700			
								Blufftown Formation			Blufftown Formation	Lower part consists of crossbedded, glauconitic, calcareous fine sand to micaceous clay and marl. Upper part consists of carbonaceous clay and silt, cross-bedded sand, and highly fossiliferous clay to glauconitic fine sand ⁴	
			Austinian Eaglefordian Woodbinian	Eutaw and Tuscaloosa Formations (undivided)	Eutaw and Tuscaloosa Formations (undivided)	Eutaw and Tuscaloosa Formations (undivided)	Eutaw and Tuscaloosa Formations (undivided)	Alternating layers of sand, sandy clay, and clay		200-1200			

1 Hicks and others, 1981
2 Gibson, 1982
3 Ripley and others, 1981

4 Reinhardt and Gibson, 1980
5 Location of areas shown in Figure 2

EXPLANATION

