

### City of Savannah area

During 2001, 10 wells (table below) completed in the Upper and Lower Floridan aquifers and underlying units were pumped and sampled in the Savannah area. Chloride-concentration graphs are presented for two areas—Tybee Island and Skidaway Island. Data from these two areas indicate that chloride concentration generally increases with depth below land surface.

Tybee Island is the most seaward location in the Savannah area and likely the first location to be affected by saltwater migrating laterally from the sea. At Tybee Island, chloride concentrations during 2001 ranged from 632 milligrams per liter (mg/L) at a depth of 630–670

feet (ft) in well 39Q018, to 3,295 mg/L at a depth of 840–888 ft in well 39Q024. Chloride concentrations in wells 745 ft or less in depth (wells 39Q017 and 39Q018) have not changed appreciably since monitoring began. However, in well 39Q024 open to the Lower Floridan aquifer at depths of 840–888 ft, the chloride concentration has increased since the late 1990s to a maximum of 3,370 mg/L during July 2001.

At Skidaway Island, chloride concentrations during 2001 ranged from less than 5 mg/L at a depth of 211–250 ft in well 37P115, to 337 mg/L at a depth of 700–1,100 ft in well 37P113.

*Chloride-monitoring network in the Upper and Lower Floridan aquifers, Savannah area*  
[mg/L, milligrams per liter; —, no data]

Site name	Other identifier	Open interval (feet below land surface)	Water-bearing unit <sup>1</sup>	Chloride concentration July 2001 (mg/L)	Chloride concentration December 2001 (mg/L)
37P113	Skidaway Institute, test well 1	700 – 1,100	L	337	330
37P114	Skidaway Institute, test well 2	262 – 400	U	7.0	5.7
37P115	Skidaway Institute, test well 3	211 – 250	U	4.1	4.2
37Q185	Huchinson Island, test well 1	274 – 344	U	5.7	5.6
37Q186	Huchinson Island, test well 2	1,380 – 1,520	P	1,965	1,917
38Q196	U.S. Geological Survey, test well 01 Pt 2	870 – 900	L	5,615	—
38Q201	Georgia Geologic Survey, Fort Pulaski, test well	1,358 – 1,546	P	18,900	20,300
39Q017	U.S. Geological Survey, test well 07 Pt 1	710 – 745	L	860	830
39Q018	U.S. Geological Survey, test well 07 Pt 2	630 – 670	L	632	637
39Q024	Georgia Geologic Survey, Tybee Island, test well 1	840 – 888	L	<sup>2/</sup> 3,370	<sup>3/</sup> 3,295

<sup>1/</sup> L, Lower Floridan aquifer; U, Upper Floridan aquifer; P, underlying Paleocene unit of low permeability.

<sup>2/</sup> Sampled January 2001.

<sup>3/</sup> Sampled June 2001.

