

Upper and Lower Brunswick Aquifers

Water levels in 12 wells were used to define 2001 conditions in the upper and lower Brunswick aquifers and equivalent low-permeability sediments to the north and west in southeastern Georgia. Both the upper and lower Brunswick aquifers are confined throughout the known areas of extent (map and table, facing page). In seven wells, water levels were in the normal range; in four wells, water levels were below the normal range; and in one well (34H437), the water level was above the normal range. These variations reflect differences in local pumping, interaquifer leakage effects, and recharge.

Water-level hydrographs for three upper and lower Brunswick aquifer and equivalent-sediment wells (shown below) were chosen to illustrate monthly mean water levels during 1997–2001 and period-of-record water-level statistics. These water levels show that during 1997 and 1998, water levels in the upper and lower Brunswick aquifers were at, above, or slightly

below normal in wells 31U009 and 32L016, but the effects of drought became apparent during 1999 and continued through 2001. Conversely, in well 34H437, the water level remained at or above normal during this same period.

The water level in well 31U009 (completed in undifferentiated sediments equivalent to the upper and lower Brunswick aquifers) was below normal during 1997–2001 (except during brief intervals during 1997 and mid-1998), likely due to the combined effects of drought and pumping. The hydrograph for well 32L016, completed in the upper Brunswick aquifer, shows the water level for 1997–98 in or above the normal range until early 1999, when the water level began to fall below the normal range. Well 34H437, also completed in the upper Brunswick aquifer, is unusual because the water level generally remained above normal for the entire period. In this area, the upper Brunswick aquifer is tightly confined and not widely used, and thus, water levels show little long-term trend.



