

**EASTERN TAMPA BAY  
WATER RESOURCE ASSESSMENT PROJECT**

**Southwest Florida Water Management District  
March 1993**

Center (Figure 3-43). The surficial aquifer water level in this well only fluctuates over a 2 foot range, which is especially small when compared to the seasonal changes in Floridan aquifer water levels. At this location, Floridan levels fluctuate as much as 40 feet seasonally.

### 3.7 Water Quality

The most important trend in water quality in the Eastern Tampa Bay WUCA is associated with seawater or saltwater intrusion. Seawater intrusion is indicated by chloride ion concentration increases in coastal ground water. Evidence of seawater intrusion has been monitored in wells of the coastal zone of the Eastern Tampa Bay WUCA (west of Interstate Highway 75). Increasing chloride concentrations are present in the Tampa and Suwannee limestones and the Avon Park formation.

Another important water quality trend in the Eastern Tampa Bay WUCA is associated with upconing of mineralized water. The upconing of mineralized water is typically indicated by increases in sulfate concentration in water in the aquifer system without concurrent increases in the chloride ion. Evidence of upconing of mineralized water has been monitored in Eastern Tampa Bay WUCA wells, principally in the interior areas (east of Interstate Highway 75).

The water quality trend section is divided into several parts: 1) a discussion of data collection methodologies and sources; 2) the criteria for establishing trends and the results of the trend analyses; and 3) site specific trends for chlorides, sulfates and total dissolved solids (TDS). The discussions of site specific trends are divided according to location and water use type.

**Data Collection** - Comparison of water quality data collected from different wells or from a single well over time should be performed with caution. This caution is necessary because different procedures may have been used to collect or analyze the samples. Changes in sample collection or analytical methods are frequently the case when there are long periods between sample collection.

## Interconnection of Aquifers

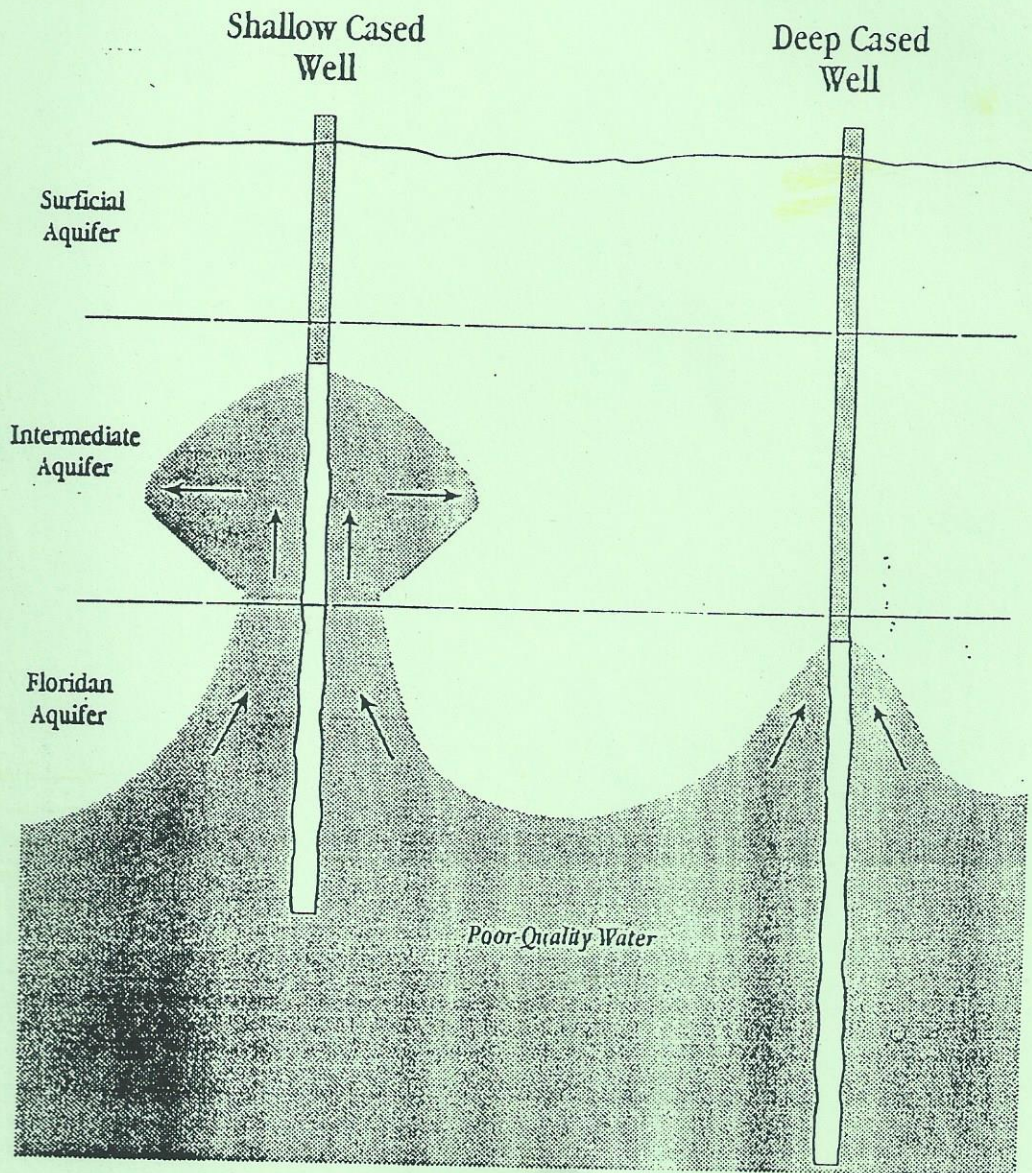


Figure 2. Interconnection of Aquifers

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