WATER-LEVEL DATA

Water-level data for constructing these maps were obtained during November 1982, early December 1990, and late June 1991, for the water-level measurements were made using a U.S. Geological Survey digital gauge system, and some of the measurements were provided by the South Carolina Water Resources Commission and the Department of Natural Resources. The water-level measurements were made at points distributed throughout the study area, and the map data were derived from topographic quadrangle maps at 1:24,000 and 1:12,500 scales having land-surface elevations intervalized to 10 feet.

Although water-level measurements were made at wells in areas of pumping areas, care was taken as much as possible to ensure the measurements represented only the levels of the aquifer at the times of the measurements. A few measurements may be composite measurements from several zones that use aquifer, but these measurements are represented by readings at one well and do not represent the entire aquifer.

POTENTIOMETRIC MAPPING METHODOLOGY

To ensure that the potentiometric maps produced in this report represent conditions during November 1982, composite pumping was made between November 1982 maps, the South Carolina Water Resources Commission and the Department of Natural Resources. The data were prepared using a U.S. Geological Survey digital gauge system, and the scale of the maps is a contour interval of 25 feet.

FLOW SYSTEM

The major source of recharge to the Coastal Plain aquifers of South Carolina is precipitation in aquifer outcrop areas. Potentiometric highs are the inverse of the upslope of the contour areas of aquifers 42, 43, and 44 from this recharge.

The major discharge from aquifers 42, 43, and 44 to rivers and streams in the upper Coastal Plain. The basic data for the potentiometric systems are in the vicinity of the Savannah River and other major waterways. The potential and reference elevations in Figure 4.0 are in units of feet.