

Hydrology - Open-File Report 16

Water Level Conditions in Beaufort, Jasper, Colleton and Hampton Counties, from Data Collected During August of 1983

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DISCUSSION

Over the past four years, the Beaufort office has been responsible for monitoring a network of wells in the above referenced counties, twice yearly. Unfortunately, very little work has been done with the data collected during these monitoring "runs". Other than recording the data twice a year, nothing was done to illustrate ground water movement in the Low Country. This report is the beginning of a sequence of semi-annual reports on the water level conditions of Beaufort, Jasper, Colleton and Hampton Counties.

Several inconsistencies were encountered while attempting to draw a potentiometric map for the four-county area (see attached map). As I had expected, numerous wells that were measured in the past were not available to measure during the August water level run. These wells were never replaced by alternate wells. Therefore, the map is very sketchy in the grids where monitoring wells were not available. In addition to unmonitored grids, several current water level wells are being pumped daily. These pumping wells need to be replaced with unused or seasonally used wells. Another problem is that several wells now being monitored do not have recorded casing depths or total depths. I suggest that geophysical logs should be collected on any open monitoring wells in Hampton and Colleton Counties in order to determine whether they are too deep for our purposes.

Tidal corrections have not been calculated for water level wells located in the Coastal Regions, since very few wells would fluctuate more than 2-3 feet from tidal influence. The map accompanying this report was drawn with 5-foot contours or greater. Therefore, tidal effects will not drastically alter the map; but, if the previously mentioned corrections are made, a much-improved map may be constructed.

Copies of this report are available in the SCDNR's Columbia office.