

cene age, but possibly in part of Pliocene age. At greater depths occur similar beds of Miocene age. At undetermined depths, but probably something like 700 or 800 feet below the surface, the Tertiary beds are underlain by strata of Cretaceous age.

Water Resources.—The lower sandy beds of the Pamlico deposits supply most of the water for domestic use in the county. Both open and driven wells are used and range in depth from 8 to 20 feet. The amount of water obtainable from the driven wells is very large. At the plant of the Crystal Ice and Coal Company on the shore of Pasquotank River in Elizabeth City, five 12-foot driven wells yield 1,000 gallons a minute. This water is used, however, only when the Pasquotank River becomes salty. Cisterns are used by some of the inhabitants at Rosedale and Mumford.

Numerous springs occur along the scarps bordering the rivers in the county where the basal water-bearing sands of the terrace deposits have been cut into by erosion. These springs are but little used.

Elizabeth City, situated at the head of the estuarine portion of the Pasquotank River, is supplied by a system of waterworks owned by the Elizabeth City Water and Power Company. The water is obtained from Knobbs Creek 1 mile above its junction with the Pasquotank River. The creek is a sluggish stream, having the characteristic brownish color common to the streams of this region. The water is filtered after treatment with sulphate of alumina and soda. Most of the color is removed by the treatment, and the supply seems fairly good, although the inhabitants are not all satisfied with it. About 300 houses are supplied by the city water. In a boring 46 feet deep made by the water company sulphurous water was encountered from a depth of 26 feet to the bottom. At the Crystal Ice and Coal Company's plant a well was sunk to a depth of 100 feet, but, on account of failure to obtain water, the casing was withdrawn to 12 feet. About 10 years ago this company sunk a 3-inch well to a depth of about 250 feet and obtained a plentiful supply of hard, sulphurous water which rose nearly to the surface. The hardness of the water prevented its use and the well was abandoned.

In 1891, Mr. Henry E. Knox, Jr., bored ten wells in different parts of the city, having an average depth of about 64 feet. Several of these, which were located on low ground, overflowed. Two water-bearing strata were penetrated at depths of about 58 and 78 feet, respectively, below the surface. The water from both strata is strongly sulphurous. (See records by Darton.¹)

¹U. S. Geol. Survey Bull., No. 138, 1896, p. 193.