

sands and gravels which in places probably overlap upon the basement rocks. These belong to the Sunderland formation and to a very limited extent to the Wicomico formation.

Water Resources.—In the central and western parts of the county open wells 15 to 70 feet deep yield a supply of soft water which comes from the Lafayette and Coharie sands and gravels or from the porous, decomposed portions of the underlying crystallines. Along the eastern border of the county, where the deposits of the Sunderland formation form the surface, open and driven wells furnish an abundant supply at depths of from 10 to 30 feet. A few springs are used in the hilly portions of the county.

Rocky Mount, which lies partly in Nash and partly in Edgecombe County, has a public water system. The original system which derived its supply from a small stream known as Stony Creek, 4 miles northwest of the city, was installed in 1898. At present (spring of 1909) a new pumping station is being erected on the east bank of Tar River just west of the city. The following information concerning this new plant has been furnished by Mr. A. S. Lyon, Superintendent of Public Works: The pumping capacity is to be 4,000,000 gallons per day, which is to be effected by means of three pumps, one of 2,500,000 gallons capacity, and the other two of 750,000 gallons capacity each. The plant includes a coagulating basin of 200,000 gallons capacity, a clear-water basin of 500,000 gallons capacity, and a pressure filter of 2,000,000 gallons capacity, made by the New York Continental Jewel Filtration Company. The standpipe has a capacity of 150,000 gallons. The maximum standpipe pressure is 47 pounds, and the possible direct pressure ranges from 100 to 150 pounds on the different parts of the main. The number of miles of mains will be 14.2 and the number of fire hydrants 92. The water will be used for all domestic purposes and by manufacturing plants and railroads for steaming purposes. The old plant is being abandoned because its capacity for meeting the demand made upon it is no longer adequate.

Assays of waters from this county are given in Table 1, pp. 498, 499, assays Nos. 117, 118. These are discussed on page 489.

Artesian Prospects.—The Miocene beds along the eastern border of the county attain no great thickness and are not very important as an artesian source, although potable water may be expected from them. The underlying basement rocks may be regarded as a possible, though not very promising, source of artesian supplies.

NEW HANOVER COUNTY.

Topography.—No topographic maps have been made covering areas within the limits of this county, and but little data indicating eleva-