

HALIFAX COUNTY.

Topography.—No part of the county is covered with topographic maps, and an accurate statement of the surface features is impossible. The Chowan terrace plain of the Pleistocene borders Roanoke River, with elevations not exceeding 50 or 60 feet; a considerable portion of the eastern part of the county is covered by the next higher or Wicomico plain, with elevations ranging from 80 to perhaps 100 feet, being separated from the Chowan plain by a well-marked scarp; in the central part of the county the Sunderland plain exists, but its extent is not known; and a narrow strip of the Coharie plain is probably present to the west of the Sunderland area. The western part of the county falls within the Piedmont region and presents a Piedmont topography, although deposits of Lafayette age are present to greater or lesser extent as surficial coverings.

Geology.—Crystalline rocks form much of the surface in the western part of the county, reaching elevations of perhaps 400 or 500 feet. To the eastward the surface of the crystallines passes beneath the deposits of the Coastal Plain, forming their basement, and in the extreme east probably exist at a depth of about 400 feet. In that part of the county lying to the east of the main line of the Atlantic Coast Line Railroad the Patuxent beds, consisting of compact clays and arkosic sands, are present, resting directly upon the eroded crystalline surface. These reach a maximum thickness of perhaps 275 to 300 feet. Their upper undulating surface was observed rising and falling above and below water level in Roanoke River from the State farm to Palmyra, the maximum thickness exposed being about 12 feet. Resting upon the latter are the sands, clays, and marls of the Miocene, having a maximum thickness of perhaps 75 or 80 feet, and spreading westward beyond the region of the Patuxent beds, overlapping and transgressing upon the crystalline basement surface to an unknown distance, perhaps not exceeding a few miles west of the main line of the Atlantic Coast Line Railroad. Over all older formations the Pleistocene sands, loams, and gravels of the several terrace deposits are spread in a thin sheet, even extending westward over the crystalline rocks. In the western part of the county deposits of sand and gravel of Lafayette age mantle to greater or lesser extent the Piedmont hills at elevations exceeding 230 feet above sea level.

Water Resources.—Over the eastern half of the county the drinking-water is obtained principally from open and driven wells 15 to 50 feet in depth, the water coming from the lower sandy portions of the Pleistocene, or in the deeper wells from sand beds in the Miocene. The most common depth of the driven wells is about 30 feet. Where stream