

that potable waters might be obtained from deep-lying Cretaceous beds at depths of 500 feet or over, but the quality of water from this source remains to be tested. Flowing wells are not believed to be possible except in low lands bordering Chowan River and its tributaries. In wells whose depths do not exceed 300 feet below the surface the water would probably not rise more than 10 feet above sea level. At greater depths it would rise somewhat higher. Gatesville is probably the only town so situated that an overflow would be possible from either the Miocene or Cretaceous beds.

GREENE COUNTY.

Topography.—Parts of three Pleistocene terrace plains make up the surface of this county. The Chowan plain forms narrow borders along Contentnea and Little Contentnea creeks at elevations ranging from 30 to 60 feet; the Wicomico plain at elevations of 60 to 90 feet covers the interstream areas of a little more than half the county on the east; while the Sunderland plain, with elevations of 110 to 120 feet, forms the surface over a little less than half the county in the west. In places the plains are separated by well-marked scarps. The plains have been dissected somewhat by stream erosion.

Geology.—The county is underlain by the Patuxent and Black Creek formations, and to a limited extent by the Peedee sand, of Cretaceous age, and in part by Miocene beds which overlap the Cretaceous. The Patuxent formation underlies a narrow area extending in a northeast-southwest direction in the northwestern part of the county. It here rests upon a buried crystalline surface which probably lies at a depth of about 200 feet and which becomes deeper to the southeast. The Patuxent beds consist of compact, drab, sandy clays, and gray, micaceous, arkosic sands. These dip gently to the southeast and pass unconformably beneath the Black Creek formation. The latter, which consists in part of dark-colored, laminated, lignitic sands and clays, and in part of marine greensands, underlies a wider belt extending in a northeasterly direction across the center of the county. It dips gently to the southeast and passes conformably beneath the Peedee formation. The latter underlies a limited area in the southern part of the county. The beds are composed of dark green, glauconitic sands and clays, with occasional layers of lime concretions. Resting upon the undulating surface of the Cretaceous and probably spreading over almost the entire county are beds of Miocene age consisting of loose, light-colored sands, sometimes iron-stained and indurated, and light drab clays, frequently fossiliferous. Pleistocene deposits of the Sun-